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# PENNSYLVANIA GAME NEWS

APRIL 1942 TEN CENTS

# PENNSYLVANIA GAME NEWS

PUBLISHED MONTHLY BY THE PENNSYLVANIA GAME COMMISSION, HARRISBURG, PENNSYLVANIA


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VOL. XIII, No. 1

# EDITORIAL

APRIL, 1942

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*Cover by Jacob Bates Abbott*

UNION LABEL

# LENDING A HAND TO FARMERS

WHEN harvest time rolls around this year, and farmers are hard put to get grains away and corn shocked and husked because of lack of manpower, help will be offered them by hundreds of sportsmen throughout the Commonwealth.

This promise, made by the Pennsylvania Federation of Sportsmen's Clubs, is not merely an outward gesture of cooperation made for a selfish purpose. It is a sincere recognition of the agricultural problems which many farmers will surely face; and a wholehearted desire to lend a helping hand for National Defense.

As was clearly and emphatically pointed out by M. C. Merritts, the Federation's President, who fostered the cooperative plan, sportsmen everywhere, whether they are affiliated with the Federation or not, owe their Country a few days, a day, or even a part of a day's extra time so that those of our armed forces in the four corners of the world, those who labor at home, yes even the peoples of the Nations which are fighting for the same principles we are fighting for, have adequate sustenance to carry them on to a glorious victory.

It is a serious and important matter—that of safely garnering our golden harvest—and the Federation is to be highly commended, not merely for recognizing the opportunity to assist, but for going ahead in a businesslike way and seeing to it that the job is done and done well.

And it will be done well if every sportsman plays a part minor though it may be. A systematic and well-defined program of action is being formulated now, and with County organizations, local clubs, including sportsmen and County Farm Agents cooperating, there should be little difficulty in carrying it out to a successful conclusion after the starting gun is sounded.

This is no time for idle chatter or smug complacency. A unified effort is needed these days in every industry, every vocation, every undertaking if we want always to be on the inside looking out. Let us hope that sportsmen in other States will take a leaf from this same book to the end that no grain goes to waste during 1942 for lack of willing hands to help harvest it.

A second plan, for every sportsman to volunteer to fight forest fires whenever possible, also merits hearty commendation. Sportsmen know the woods and have the clothing and equipment necssary for this hazardous job. Furthermore, they have a stake in those forests which, though so vitally essential in National Defense, provide the homes for the wild creatures which furnish the necessary sport and recreation so important in the American way of life.

**Don't Forget Pennsylvania Sportsmen's Week - April 1st to 8th**

**Don't Forget National Wildlife Week - - April 12th to 18th**

**DON'T FORGET TO**

**BUY DEFENSE BONDS AND STAMPS EVERY WEEK**

L312412

# Memories

By CHARLES G. STONE*

The deer will steal through the forest path
on swift and silent hoof,
And bruin will yawn and stretch again
and roam the fields, aloof.
The sparkling trout, when the ice is gone,
will leap again in the pool
And the fighting bass will guard his nest
till the small fry leave the school.

The old cock grouse, with his matchless ruff,
will drum on his log as of yore
And a covey of quail, "in hiding" there,
will burst from the stubble floor.
The music of hounds will ring once again
and the rabbit and 'coon will run;
And some where a dog will freeze to a point
and wait for the crack of the gun.

Camps will be filled and friendships renewed:
Campfires will crackle with cheer.
Voices will ring and faces will glow
with joy, repressed for a year.
But sickness has come and stiffened my joints:
I no longer can hold a gun,
And though I'll not be there to see and hear,
I'll not be missing the fun.

For in **memory** I can still see the sights
on the target, steady and true,
I can feel the fresh air and see the first
of the dawn's rays breaking through.
I'll still feel the 'tug' of a swift running stream,
my hunting days surely aren't gone,
For I'll 'live' in camp the night before
and will be on the trail at dawn.

The deer, the bear, the cottontails bagged;
the fish brought to gaff or to net;
The birds that collapsed while high in the air
are etched in my memory yet.
But the pictures that remain the clearest to me
(and they seem most likely to stay)
Are the times when outsmarting with instincts
wild, the 'big ones' got away.

The old cock grouse that burst like a bomb
from right in front of my nose
When I was halfway thru a barbed wire fence
with three barbs stuck in my clothes;
And the world's most gorgeous buck—he
seemed—lay motionless as he fell,
'Till with gun set aside, I approached him
with pride, and off he dashed pell-mell.

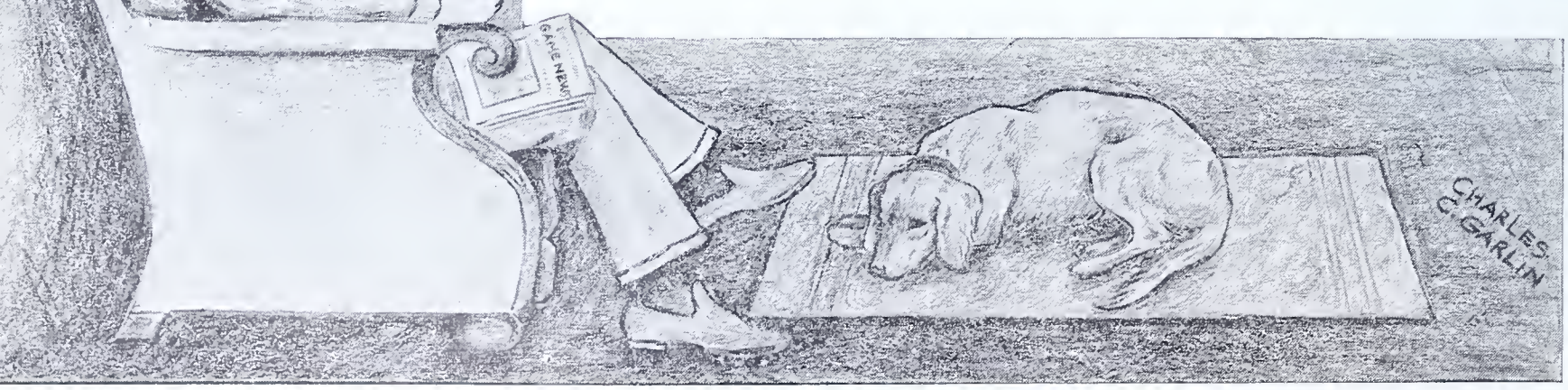
And the big brown bear that got wind of me
before I could hazard a shot,
And the big snow goose that thought he would
land and then—thought he would not.
And the brags, the threats, the promises made
after each 'prize' got away,
That I would return and keep up the game
and outwit them all some day.

But that is now past, the boasts are all stilled,
the threats and promises void;
And I can now see with vision most clear,
why all these things I've enjoyed.
I see meetings of sportsmen to map out a
course the best of improvements to make,
I see arguments heated and plans completed
by men who could give and could take.

I see the torch carried by sportsmen until
they falter and pass it along
The younger hands waiting to take up the task,
hands that are willing and strong;
And they will take over with vigor and tact,
their efforts will surpass today;
And this they'll bequeath to more willing
hands, eager to enter the fray.

For the babes in the cradle, the children at
play will someday stand where you stand.
You can't let them down and endanger their
chance to share in this sport so grand;
And they must be given, at least in full
measure, the opportunities given to you
So when they have finished and laid down
their task, they'll have their memories too.

*Former Secretary of the Pa. Game Commission.



Front row, left to right, R. S. Lichtenberger, Resident Instructor; W. C. Ryder, Assistant Superintendent, Training School; W. M. Cramer, Superintendent, Training School; Hon. Seth Gordon, Executive Director, Penna. Game Com.; Hon. Robert Lamberton, Vice-President, Penna. Game Com.; Hon. William M. Parker, Justice, Penna. Supreme Court; Lieut. Col. Lynn G. Adams, Superintendent, Penna. Motor Police; M. C. Merritts, President, Penna. Federation of Sportsmen's Clubs; Rev. Darlington R. Kulp, D.D., First Vice-President, Penna. Federation of Sportsmen's Clubs; Dr. H. E. Kilgus, President, Brockway-Snyder School Board; Dr. R. L. Watts, Dean Emeritus, School of Agriculture, Penna. State College. Second row standing, left to right, Jack L. Delong, Daniel H. Fackler, John P. Eicholtz, Louis D. Mostoller, Fred L. Myers, Roy W. Trexler, John I. Hendricks, Jackson S. Kepner, Elmer D. Simpson, Lester E. Sheaffer, Harry W. Defina, Joseph L. Budd. Third row standing, left to right, Harold C. Kornman, Paul L. Failor, Clifford L. Ruth, Edward R. Richards, James A. Brown, Allan T. Studholme, George H. Burdock, William R. Overturf, Clair W. Dinger, George W. Miller, Martin L. Shaffer, Temple A. Reynolds. Photo by C. Gordon Krieble

# GRADUATION DAY

ON the afternoon of February 28, 1942, in the Brockway High School, twenty-four high calibre young men graduated from the Pennsylvania Game Commission Training School. Only three of the original twenty-seven, who began their nine months course on June 7 failed, for one reason or another, to complete it. The twenty-four successful entries who, as Seth Gordon the Commission's Executive Director so ably put it "made it on their own," deserve the highest commendation for having undertaken and successfully finished the first leg of their journey into the conservation world of today. These men passed repeated tests and were under continuous observation and study every day while in the school and in the field. As Mr. Gordon further stated, "they are certainly to be congratulated for surmounting all those hurdles and then finishing up with a ceremony like this."

The program surrounding the graduation exercises was tremendously impressive, beginning with the Star Spangled Banner played by the Brockway High School Orchestra, and followed by a most inspiring invocation by Darlington R. Kulp, D. D., First Vice-President of the Pennsylvania Federation of Sportsmen's Clubs, who in part said "and may we feel big enough to respond to any call that may come to conserve those human values, those great assets which only America possesses. As we go out into life may we go forth bigger and better prepared because of this occasion which brings us together."

Following the invocation, Director Gordon introduced Wilbur M. Cramer, Superintendent of the Game Commission Training School, who in turn presented the class and his staff.

Although the assembled body had hoped to hear Hon. Ross L. Leffler, President of the Commission, and one of the pioneer proponents of the Training School address them he could not exempt himself from Pittsburgh where he has the enormous task of organizing the Home Defense of Allegheny County. In his absence, Hon. Robert Lamberton, Vice-President from Franklin, congratulated the class, commended its officers, and commented on the Commission's outstanding progress through the years. In reviewing the program he said, "When the Game Commission was formed in 1895, we had no game protectors at all. In 1898 we had one game protector for the whole State. Today I thought I would congratulate this class, a fine looking group of young men, but in place of that I think I shall congratulate the sportsmen of the State for the fine body of men we have here today. Up until 1924 we picked our game protectors by the way they were approved or recommended through the community. In 1924 we started competitive examinations to pick them, and they had to pass certain requirements before they were taken in. In 1936 the first class of students enrolled in the Pennsylvania Game Commission Training School.

"We are very proud of this Training School, and I think the sportsmen of the State should be proud of it, because it is the only school of this character in the United States. It was the first school established. We take these young men in and they have to pass certain examinations; they have to stand up under investigation in the community where they come from; they have to be between certain ages, heights and weights before they are accepted. In the school they are taught the things they should know to carry on their work in the field, such as law enforcement, game management, and numerous other subjects, and at seasonable periods of the year they are in the field. Now this graduating class will be sent out and assigned to duties in the different game divisions of the State, and I know they will carry on their work to the satisfaction of all.

"There are 46 out of the 52 students who graduated from the School still employed by the Commission. I think that speaks mighty well of the enthusiasm these young men have; the fact they accept this position when they undoubtedly could make more money at present if they went into factories or offices. Instead they have selected work where they can get close to nature. They certainly deserve credit."

At the conclusion of Mr. Lamberton's remarks, Director Gordon pointed out that the men in the class selected one from among their own number to speak for them. Therefore, Allan T. Studholme, upon whom this honor was conferred, was next introduced, and in a few well chosen words outlined the life at the school.

"Early in June we entered the school as 24 individuals, drawn from all types, occupations and selected from all sections of the State. For nine months we have studied and lived together, and in each class the same fellows sat next to us; at each meal we looked across the table at the same faces; in the dormitory the same fellows slept above or below us, but, in spite of the fact we lived so close together under the same roof, good fellowship and consideration prevailed always. Selfish desires were at all times subjacent for the benefit of the group. We learned to appreciate and understand the other fellow's problems; we learned the meaning of teamwork; but perhaps the greatest benefit we derived was a full understanding of cooperation.

"Presently we will take up our homes in new communities, and so to speak, hang out our shingle. It is then that our real work begins, and through association with other officers, and through the best teacher of all, experience, we hope to become better men of that grand organization, the Pennsylvania Game Commission.

"I wish to take this opportunity to thank the members of the Commission, its employes,

(Continued on Page 31)

Up until recent years the Commission purchased most of its land in large game territory. Photo by Dr. C. S. Apgar

# FUTURE PROBLEMS WHICH CONFRONT

I am delighted to appear before this large annual gathering of representative sportsmen from all corners of the Keystone State, and to discuss with you some of the important problems which confront you and your Game Commission.

At the outset let me say that the immediate and paramount problem which faces all of us, and every other citizen of the Nation, is the job of winning this frightful war that has been thrust upon us in order that the American way of life may not perish from this Hemisphere. But in winning that war we also must be vigilant to guard everlastingly against any needless waste of our natural resources, the very lifeblood of any State or Nation.

In this world-wide struggle the tide of battle will not swing to the side which alone can muster the most men of courage, skill, and daring, but the ultimate victors will be those Nations which are blessed with the sinews of war in the shape of raw materials, their annual resources. Already the enemy shows unmistakable signs of running low in these vital essentials, even though he has subjugated and bled to death a number of weaker nations in his conquests.

I repeat, our first and only immediate job is to win the battles of the day, and with heroes like MacArthur in charge of the fighting forces there is no question about the outcome if we back them up on the home front. However, to do our part we must maintain the morale of our people by giving them every possible opportunity for healthful outdoor recreation, such as hunting, fishing, camping, hiking, etc.—and without tires it looks as though we will all do a lot more hiking—in order that our citizens may temporarily escape from the enervating, nerve-wracking effects of high pressure defense activities. We must be physically strong and mentally alert. No Nation can win a war with shattered morale, either at home or at the front. And you can't win wars with physical wrecks.

Pennsylvania is blessed with the necessary natural resources for any struggle, but we must protect and use wisely our forests, our waters, our soil, our minerals, and our wildlife resources, not only for the present struggle but in order that future generations may enjoy their benefits as well. The March issue of the PENNSYLVANIA GAME NEWS was devoted almost exclusively to National Defense.

During the past year the Game Commission has met with the Directors of the Federation for informal discussions of our mutual problems on at least three occasions, and those conferences have been most helpful to all of us. The last one, at the Commission's Training School on October 12, was exceptionally good, and since the information presented at that conference was reproduced and sent to every sportsmen's organization in the Commonwealth for use as discussion material in their meetings this winter, also published in part in the January issue of the GAME NEWS, I shall devote the time alloted to me today to a discussion of future problems which confront us.

At the January meeting of our Commission, we considered at length a very excellent condensed report of twenty pages prepared by the Staff, which covered not only the outstanding accomplishments of the year but the pressing problems. I shall endeavor to give you the highlights thereof, especially the latter, and the Commission's conclusions concerning them, which I trust will meet with your approval.

### Finances

The financial operations of the Commission for the last fiscal year were quite fully covered in the December GAME NEWS, with a condensed table showing the income and expenditures for a period of twenty-one and one-half years. Reprints of that article are available for those who may desire them. As a matter of immediate information, however, I refer you to the condensed table at the bottom of this page.

It is significant to note that during the past twenty-one and one-half years we have made capital investments aggregating almost $4,000,000, over $3,500,000 of which was invested in State Game Lands and State Game Farms.

Our income last year, due to increased license sales and federal-aid moneys, was the

**STATEMENT OF INCOME AND EXPENDITURES**
**December 1, 1919 to May 31, 1941**
(21½ years)

| | | |
|---|---|---|
| Income | $22,640,810.84 | |
| Total Expenditures | 22,009.146.00 | |
| MAJOR FUNCTIONS: | | |
| Protection Expenditures | 6,815,875.73 | (31.1%) |
| Land Purchase Expenditures | 3,123,839.52 | (14.2%) |
| | 68,571.62* | |
| Land Management Expenditures | 3,460,089.74 | (15.8%) |
| Game Farm Expenditures | 1,565,219.47 | ( 7.1%) |
| Game Purchase Expenditures | 1,940,483.46 | ( 8.8%) |
| Bounty Expenditures | 2,476,846.80 | (11.3%) |
| Totals for Six Major Functions | $19,382,354.72 | (88.3%) |
| All other Expenditures | 2,558,219.75 | (11.7%) |
| Grand Total for All Purposes | $22,009,146.09 | ( 100%) |

*Land bought and subsequently sold to Department of Forests & Waters.

*Address to the 11th Annual Convention of the Pennsylvania Federation of Sportsmen's Clubs, Harrisburg, Pa., Feb. 13-14, 1942.

*Ross L. Leffler**

★

highest on record, almost $1,659,000. At the beginning of the fiscal year we had on hand slightly over $1,000,000, of which more than $254,000 had previously been committed.

The Commission has in recent years annually held in reserve a substantial balance for future contingencies, just as does any good business concern; we have budgeted our funds so conservatively that there is always a safe working balance on hand. However, after taking all these items into consideration, we were able to set up a budget for the current fiscal year, which ends May 31, 1942, of $1,789,275.00.

While the sale of licenses in 1941 went beyond our expectations (approximately 671,000 resident and 10,500 non-resident, as against 666,420 resident and 12,748 non-resident the year previous), under present war conditions in itself is no insurance that none will occur in the future. Fortunately, under the federal-aid law state wildlife revenues cannot be diverted without jeopardizing federal aid. This should be helpful in warding off threats to the Game Fund. But it is up to you sportsmen everlastingly to be on the alert.

In connection with our budgetary practices at this time, your attention should be called to the fact that in the budget for the current year we have allocated 65% of the Seventy-Five Cent Fund to land management and only 35% to land acquisitions, but since most of the federal-aid revenues are allocated to the latter purpose the sum available for land purchases is adequate for essential needs. As our land holdings increase, a larger amount will be required for proper management. For example, the financial outlay in lieu of taxes on State Game Lands at 5c per acre last year amounted to almost $32,000, a fixed charge that increases in direct proportion to our land holdings.

**Distribution of Licenses**

Two problems incident to the present system of distributing hunting licenses should be brought to your attention. Last year 800,000 licenses and tags were needed to take care of the issuance of the 671,000 previously indicated, or a wastage of almost 130,000. These scrapped licenses at $29.00 per thousand cost the Game Fund over $3,700. No system can be devised which will eliminate all this waste, but if sportsmen and others will refrain from using pressure on the Department of Revenue to have more and more agents appointed it will help greatly.

Another problem which confronts us this year is metal for the license tags. The proper authorities have been trying for weeks to get a definite answer as to whether their order will be filled, but in the meantime possible substitutes are being studied. In that matter we shall merely have to do the best we can. Above all else we must not interfere with National Defense.

We have also experienced some difficulty in getting licenses into the hands of the County Treasurers as well as other agents by September 1, largely a mechanical problem of production and distribution, because the time elapsed after the Commission fixes seasons and bag limits early in July is relatively short for such a big task. This year the Commission hopes to decide upon seasons and bag limits in May, even though that is too early to do the best job, because we cannot afford to take chances under present conditions.

**Land Acquisitions**

During the year which ended December 31, we acquired title to a total of 104 contracts, covering 36,756.6 acres, involving $172,740.16, at an average cost of $4.70 per acre. The average size of these purchases was 353.4 acres. This brought our total land purchases up to 687,257.13 acres, for which the Commission since 1920 expended a total of $2,627,917.71, exclusive of such items as options, examinations, title work, surveys and mapping. The average cost for the 687,000 acres was $3.82 per acre.

As you know, the Commission during the past several years has been purchasing lands mostly in the areas remote from the big forest regions to bring the benefits of our lands program nearer to large centers of population. We have also been restricting our purchases in the forest country. Naturally we have been compelled to pay more for desirable old farm lands, and the average size of such tracts is much smaller. This increases considerably the cost per acre of our current purchases. How far we can go on land purchases, and the price we can justify in certain regions, are both matters that must be given careful thought.

The Cooperative Farm-Game Program, which we launched in 1936 to relieve conditions in thickly populated agricultural sec-

(Continued on Page 18)

# THE SPORTSMEN OF PENNSYLVANIA

we cannot hope for an equally large income during the next year. We have, therefore, directed that savings be effected wherever possible in the current budget in order that an ample balance may be carried over for budgeting next year. We also feel that a considerable part of the unexpected revenue during 1941 should be held in reserve so that we may not run into difficulties later. In other words, these reserves, as one of your directors so well put it at the October conference, are nothing more nor less than "insurance."

There are some among you who feel that it is dangerous to accumulate funds against a "rainy day", lest they be diverted to purposes other than those for which collected. Unless the exigencies of the war should change the picture over night, your Commission is not fearful on that score. While no serious threat to your funds has occurred in the past, that

**During the past several years it has been purchasing lands mostly in farm-game territory.** Photo by Dr. C. S. Apgar

# A Simple Method of Sexing

By ROGER M. LATHAM

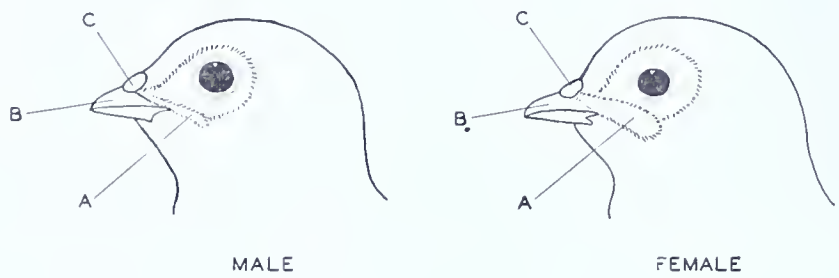



FIGURE 1

OUTLINE DRAWING DAY-OLD PHEASANT CHICKS SHOWING MALE AND FEMALE CHARACTERISTICS

LEGEND: "A"-STRIP OF LONG DOWN. "B"-UPPER MANDIBLE. "C"-CERE.

### Introduction

THE desirability of developing a simple method of determining the sex of day-old ringneck pheasant chicks has long been recognized by game breeders, research workers and others interested in the species. This need is doubtless due largely to the highly contrasting difference in the plumage of mature individuals of the two sexes, together with the polygamous habits of the bird, which have led to the adoption of certain legislative restrictions, such as the "cock law", pertaining to its management.

The practical uses of such a technique are many. For example, in Pennsylvania, where the shooting of only male ringnecks has been permitted for almost 20 years, the State Game Commission requires for its spring stocking program far more male than female pheasants. To date, however, the production of one thousand cock birds has necessitated the rearing of approximately two thousand individuals of unknown sexes to six or eight weeks of age, when the characteristic plumage differences are first discernable. The practical advantages of being able to rear birds in any desired proportion of sexes are, therefore, obvious. Similar benefits would accrue in the case of those operating private shooting preserves. Also, particularly in the Eastern States, the ability to raise birds in any desired sex ratio frequently means to the commercial propagators the difference between making a profit and suffering a loss. Finally, such a technique is at times sorely needed by research workers.

Since the anal method of sexing commonly utilized with domestic chicks requires special training and is relatively difficult in the case of birds as small as pheasants, the writer was assigned the task of developing a more simple technique which could be practically applied by any game bird propagator or research worker. That finally worked out is described and discussed in the following section of this circular.

The writer wishes to acknowledge with thanks the assistance of Richard Gerstell, Chief of the Division of Propagation and Research of the Pennsylvania Game Commission, and John D. Beule, Investigator at the Commission's Loyalsock Experiment Station, who aided in the development of the technique. He is also grateful to Professor E. W. Callenbach of the Department of Poultry Husbandry of the Pennsylvania State College and to Superintendent Earl S. Greenwood of the Loyalsock State Game Farm for their cooperation in testing the method both on a scientific as well as a practical basis.

### The Method

In the ringneck chick, **the shape and extent of the cheek patch, or eye field, is used as the sex indicator.** (The variations in color and markings of the down are completely disregarded.) Regnier (1) says in regard to adult birds, "The cheeks of the male are ornamented with scarlet, turgid, papillary tissues which undergoes seasonal changes of form, size and shape of the papillae. Its coloration is due in part to a zoocrythrine, localized as a cytoplasmic inclusion in the basal partion of the malpighian layer. The cheeks of the female possess neither papillae nor red pigment." In the day-old chick, the cheek patch of both sexes is entirely covered with natal down. This is shorter than that covering the surrounding areas, thus producing a definite outline surrounding the eye field.

The down-covered field of the typical female chick is more nearly round than that of the male and in some instances forms an almost perfect circle. Extending from the nasal opening posteriorly downward along approximately one quarter of the circumference of cheek patch, runs an unbroken, comparatively wide strip of longer down [Figure 1 (a)]. This varies from about one-sixteenth to three thirty-seconds of an inch in width.

In the male, the eye field is rounded at the back of the head, but is definitely angular on the side extending forward toward the bill This pointed section protrudes far into the "V" formed by the upper mandible [Figure 1 (b)] and the cere [Figure 1 (c)], thus greatly reducing the width of that strip of long down so characteristic of the female chick [Figure 1 (a)].

**Though not a positive indicator of sex,** it may be helpful to know that in profile the

FIGURE 2

TYPICAL RINGNECK PHEASANT CHICKS

# Day-old Ringneck Pheasant Chicks

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line formed by the forehead and the upper mandible is usually more nearly straight in the case of males than among females. In other words, as a rule, the foreheads of the females rise more abruptly from the beaks than do those of the males [Figures 1, 2 and 3].

It was discovered in developing the technique that in addition to those individuals exhibiting either typical male or female eye patches, a small percentage of the chicks were of an intermediate type, showing both male and female characteristics. In this group, a portion of the eye field enters the "V" posterior to the upper mandible as in typical males, yet the strip of down immediately below is of sufficient width to be characteristic of females. It has so far been impossible accurately to sex individuals of this type. It is, however, not unlikely that further use of the method and continued experimentation will make possible a reduced percentage of birds which must be classified, or perhaps eliminate them entirely.

Typical specimens of each of the three groups, male, female and intermediate, are portrayed in Figures 2 and 3.

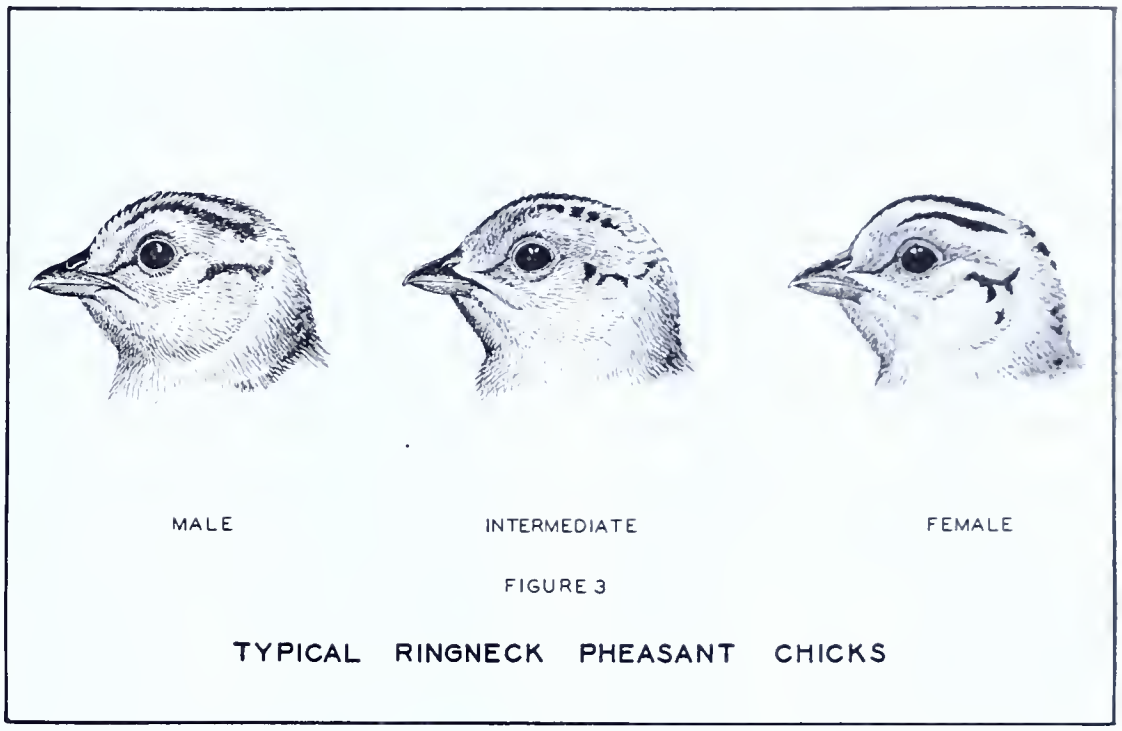


FIGURE 3

TYPICAL RINGNECK PHEASANT CHICKS

### Accuracy of the Technique

Two tests of the accuracy of the technique have been made. The first was performed by Professor E. W. Callenbach of the Pennsylvania State College, who regularly conducts tests for those persons wishing to obtain sexing certificates from the Baby Chick Association. For this a total of 148 day-old birds was available. These were first divided into male, female and intermediate groups. Each was then sexed separately. The resulting data are presented in Table 1. This shows that the combined accuracy for all types of birds was 89.9%. For the male group, it ran 96.3%; for the female lot 97.3%; but for the 19 intermediates only 42.1%.

The second check was made under actual game farm conditions. In a period of a little less than one hour, 560 individuals, representing the total number normally placed in two colony brooder houses, were sexed as removed from the incubator and divided into two groups, each believed to contain individuals of only one sex. These were placed in separate houses in the regular farm brooder field where they were cared for in the customary manner along with other birds from the same hatch. All individuals which perished during the brooding period were sexed by anatomical disection, while the remainder were checked after adult plumage was attained. The data obtained are presented in Table II. The combined accuracy in this case was 95.0%, while that for males was 94.7% and for females 95.6%.

On the basis of these tests, together with the knowledge and experience gained from the investigation, it is believed that, with limited practice, any experienced pheasant propagator, or any interested research worker, can sex newly-hatched ringneck pheasants with better than 90% accuracy just as soon after removal from the incubator as the down on the head has thoroughly dried. Furthermore, the older the birds become, the more pronounced are the sexual characteristics, thus increasing the possible accuracy among such individuals.

**TABLE I.**
**ACCURACY TEST SEXING DAY-OLD RINGNECK PHEASANT CHICKS**
**Laboratory Check by Prof. E. W. Callenbach, Department Poultry Husbandry, Pennsylvania State College, State College, Pennsylvania.**

| CLASSIFICATIONS | Males | Females | Inter-mediates | Total |
|---|---|---|---|---|
| Numbers classified as | 54 | 75 | 19 | 148 |
| Numbers correctly classified | 52 | 73 | 8 | 133 |
| Numbers incorrectly classified | 2 | 2 | 11 | 15 |
| Percentage correctly classified | 96.3% | 97.3% | 42.1% | 89.9% |
| Percentage incorrectly classified | 3.7% | 2.7% | 57.9% | 10.1% |

**TABLE II.**
**ACCURACY TEST SEXING DAY-OLD RINGNECK PHEASANT CHICKS**
**Actual Operations Check Performed at Loyalsock State Game Farm at Montoursville, Pennsylvania.**

| CLASSIFICATIONS | Males | Females | Total |
|---|---|---|---|
| Numbers classified as | 280 | 280 | 560 |
| Numbers correctly classified | 265 | 267 | 532 |
| Numbers incorrectly classified* | 15 | 13 | 28 |
| Percentage correctly classified | 94.7% | 95.6% | 95.0% |
| Percentage incorrectly classified | 5.3% | 4.4% | 5.0% |

*Includes all escapes.

### Summary

A method of sexing day-old and growing ringneck pheasant chicks has been described. This is based on the feather development in and around the eye field. Tests of the method indicate that it can be practically applied by game bird propagators and research workers with a minimum accuracy of 90%.

### Literature Cited

(1) Regnier, V. Remarques
1926. Sur le conditionnement physiologique du "rogue" de Faisan. Compt. Rend. Soc. Biol. 95 (22): 171.

# NOTES ON THE FEDERATION

M. C. MERRITTS
President

DR. C. A. MORTIMER
Secretary-Treasurer

COLIN McF. REED
Second Vice-President

THE Eleventh Annual gathering of the Federation held in Harrisburg on February 13 and 14, may be over but it is by no means forgotten. From it sprung some programs which are so timely and important, so wide in scope, and so far flung in application that they will keep every organization and individual affiliated with the Federation on their toes from now on until next hunting season rolls around.

### Post War Program

Two of these programs merit special mention because they have a direct bearing on National Defense. The one embodies a far-reaching plan of post war recreational rehabilitation designed to create more and more outdoor facilities for the people of the Commonwealth. The details of this tremendous undertaking are now being worked out by Dr. R. E. Anthony, Secretary of the South Central Division, who sponsored it and who discussed its possibilities at length during the convention, Charles Nehf, Vice-Chairman of the Southeast Division, and Dr. M. L. Banker, Chairman of the Planning Committee of the Federation.

It would not be fair either to Dr. Anthony or the members of his committee to divulge at this time any specific details of the project or its plan of administration because it is dependent upon too many involved factors, some of which must still be explored. However, in substance it will not only call for an enormous health and recreational program but it will provide a means of assimilating thousands of men after the war at a time when there must certainly exist a labor depression of some degree or other. As soon as Dr. Anthony and his committee have amassed sufficient information on the proposed undertaking it will be published in the GAME NEWS for your information and study.

### Farmer Cooperative Harvesting Program

The other program, which has been outlined rather thoroughly on the editorial page, is one which calls for immediate action because of its importance to National Defense. It is a program not to be taken lightly by any means; it is one which will produce tremendous dividends if it is backed wholeheartedly by all concerned.

While President Merrits, in outlining it, referred in particular to the associated clubs of the Federation and their membership, he by no means excluded non-affiliated clubs or individuals. Helping farmers to harvest their grain is a job anyone can do. Anyone can spend at least part of a day in the fields without requiring subsequent treatment for aching backs or tired limbs. The members of Junior Clubs, Boy Scouts, etc., should also be encouraged to lend a hand. The more the merrier. Remember we are interested these days in only one thing—**winning a war.** All other things are secondary even though essential; but to win a war our armed forces, our home workers, our allies must **eat.**

### Junior Clubs

While not mentioned as a specific program the matter of an auxiliary association of Junior Clubs is one which merits serious thought. There are numerous such clubs in existence today, but no effort has been made yet to effect a State-wide organization or to plan a year-round program of activities for them. If the Federation ever undertakes such a task it will undoubtedly receive the hearty cooperation of all State Departments interested in the preservation of our natural resources.

### REPORTS OF COMMITTEES

#### Conservation Education

(Robert Steventon, Chairman)

While the report of this committee was not particularly encouraging it was not discouraging. And the fact that the committee was not much nearer its goal is no indication that its members were not active; they were extremely active. The conservation education programs of several other States were studied. Robert Steventon, Chairman of the Committee, enrolled in the Conservation Laboratory of Ohio State University for six weeks during the summer, the writer and C. Gordon Krieble, one of his assistants, spent ten days at the same laboratory observing its operation and a National Conference on Conservation Education and Publicity was attended. On the basis of these and past surveys a specific program for Pennsylvania was recommended as follows: That a summer school

# BY THE EDITOR

similar to the Ohio Conservation Laboratory be sponsored by some institution of higher learning in the Commonwealth on a credit basis, and that the State Teachers Colleges adopt conservation as one of their primary requirements; that someone be employed in the Department of Public Instruction to work up study units for in-service teachers and the children in the public schools based on the material now being published by the various conservation departments.

This plan was drawn up and submitted to the Department of Public Instruction where it is now undergoing further study following which its merits will be determined at a round table discussion of representatives of the Department of Public Instruction, those of the various conservation agencies, the educational committee of the Federation, representatives of such outside agencies as the Women's Clubs, Garden Clubs, etc. It is hoped that this meeting will be called shortly. Now is an opportune time to inculcate conservation education in our schools. The war has already made people conservation conscious. It is making all of them more conservation-minded. It is our job to see that they remain that way permanently.

**Fish Committee**
(Ben Kane, Chairman)

The report of the Fish Committee, aside from commending the Fish Commission on certain activities and program recommended at last year's convention, included several resolutions, paramount of which was one favoring legislation, if necessary, to restore fishing streams to their former condition following highway improvements. The resolution was based on complaints that township highway supervisors have in many cases destroyed good fishing areas in their road building and repair programs. Another resolution recommended that the Fish Commission district the State and appoint supervisors in charge of such districts, such men to supervise the stocking of all fish in the inland waters of the Commonwealth. The Committee also recommended that the Fish Commission make a study of the rainbow trout situation in the north branch of the Susquehanna River and other large streams containing these fish, with a view toward extending the season on the species to September 15. It was recommended that another attempt be made to have a bill passed in the Legislature to increase the fishing license fee for the purpose of purchasing more public fishing waters.

**Forestry Committee**
(Herbert E. Watts, Chairman)

This committee worked up a plan for Statewide reforestration of Oriental Chestnut Trees, but before this could be presented to the various associations of the Federation, world conditions made it impossible to acquire the necessary seed from China. However, the committee recommended that the various clubs contact their district foresters and purchase the different nut trees propagated by the Department of Forest and Waters in their various nurseries. Clubs were also encouraged to include farmers when making distribution of the trees. In reporting further for the committee, Chairman Watts asked that it be enlarged to include a lumberman in order that more intelligent study could be made in certain sections of the State pursuant to the issuance of cutting contracts by the Department of Forests and Waters. Watts contended that after exhaustive surveys of two sections in Huntingdon and Mifflin Counties some sportsmen living near the proposed cuttings claimed on the one hand that cutting was a detriment, whereas other sportsmen claimed that is was beneficial because it increased the game supply.

**Legislative Committee**
(Charles K. Fox, Chairman)

That a more efficient and thorough legislative system be adopted by the Federation was recommended by this committee. Chairman Fox said that only by a complete reorganization of the legislative structure of the Federation could its influence be Statewide. The committee recommended the formation of club, county, and division legislative committees, and suggested that close friends of members of the House and Senate and people with excellent contacts should be appointed to such committees. Under the proposal after any Federation resolution requiring legislation has been adopted by the club, county, division or state organization it should be referred to its source and the club and the county legislative committees from the county in which it originated would be responsible for having the bill introduced. A suggestion was also made that the Federation ask the Izaak Walton League to forward vital information on proposed Federal Legislation from time to time.

**Pure Streams Committee**
(Dr. Darlington R. Kulp, Chairman)

The Pure Streams Committee as usual was very active, and its Chairman attended several important conferences on the subject during the year, including meetings with the Secretary of the Sanitary Water Board in order to consider ways and means of preventing further pollution of Swatara Creek by coal mine wastes. An especially important one convened in Philadelphia by the Interstate Commission on the Delaware River Basin, the American Society of Civil Engineers, the Engineer's Club of Philadelphia and other interested groups, brought out factors having to do with the pollution in the Delaware and Schuylkill Rivers. The comments of these various meetings are too lengthy for publication here. However, in a few words

(Continued on Page 20)

Rev. Darlington R. Kulp, First Vice-President.

# AUTUMN MAGIC

## By PAUL B. PRUGH

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The two just about bowled me over.

ACROSS the sea of waving corn the autumn breeze floated, with a softness of velvet, not cold not warm, wafting the scent of wood smoke; the baying of a distant hound, the great harvest moon showing through the ocean of clouds at lengthened intervals. A night when it was good to be alive, to breathe deeply of this autumn magic.

Old Bill came out of his kennel, pointed his nose to the sky, and sniffed the breeze, long deep breaths, then slanted over, a low whine deep in his shaggy throat. Yes it was a night for 'coon. Old Bill knew, and Old Bill never fooled.

Black Ace, just a youngster at the art of 'cooning, knew well his teacher's language and voiced his desires in his long drawn out bawl.

"All right boys, we'll go, I told them, just as soon as our buddies get collected. You just keep your pants on, and fold back your ears 'till we get ready.

Acey Boy just about swallowed his feed pan, at that, and Old Bill started his war dance, and between the two, just about bowled me over before I could get the kennel gate shut. For they are hounds, mind you, and no small fry. Old Bill is just a dog—a black and white hound with a head full of 'coon sense; Ace is a registered black and tan 'coon hound of seventy odd pounds.

Well, I was just collecting my light and paraphernalia when I heard a car in the drive, and there was Pete, our jovial Sportsmen's Club President, Ken the high school boy who has hunted with me the past two seasons, and guess who—who above all the—but three ministers of the Gospel in our fair village. Not one, but three, mind you.

At once I began to have forebodings, for I knew too well that Pete's piggy language would in spite of all get out of control at intervals; and Ken, although an amateur, kind of whispered things out loud when climbing a tree that was a little extra stubborn; and of course I wouldn't mention myself when occasionally Old Bill stumbled into a sachet pussy. Well, I think this will be good, or will it?

Anyway, we started, six of us in that car, three in front, three and two over-eager hounds in the back, with one of the Reverends at the controls, and Pete wanting to tell a story, etc. Oh well, it wasn't so bad. We headed for No. 2 school house which nestles in the edge of a sizeable tract of wood, and from there we figured to hunt the Umbern Bottoms, in which we knew old ringtail had his abode.

"Did someone tell Doc where we're heading," someone asked? "Yes" I told them, "Doc will be along as soon as he closes his office." "He said, if he didn't catch up with us he'd listen for the hounds and head for them" and you can hear Black Ace five miles; no foolin'."

Well there you have it. Two store clerks, one high school boy, three preachers, and a doctor. Some concoction! Huh?

"Away we started, six of us in that car."

We just got nicely started down the road through No. 2 woods. Old Bill and the pup had headed down the hollow ahead of us, and we all, (I guess all) had our pipes going good, when Bill started to talk about something over on the side of the hill. Then Ace came in with his mournful bawl. The chase was short, and ended in a hole. An old Br'er 'Possum, I concluded. After a little arguing and coaxing, I got Old Bill to leave it there, but some of the things he said before he left that hole were awful. I told him to shut up, we had some preachers with us, but he said he didn't give a hoot, it should have gone up a tree.

Well, we just got started down the hollow again, and along came Doc. We got him parked pretty sudden like, and started this time to hunt in earnest. Old Bill was still mad, mind you, about that 'possum, and Ace said he would run a rabbit if that happened again, but I knew he was only foolin', for he never had, even when he was just a puppy. I told him, though, I'd cut about a foot off his ears if he did, and he could lose about that much, and have some left. I guess he knew I didn't mean that either. We shouldn't a bin fibbin' that way, especially with these Reverends along, but they said they'd forgive us.

So down the old pipe line we went, across the creek, and on down into the bottoms. Along the edge of this beautiful entanglement runs a corn field, the great shocks standing like sentinels in the gray night, here and there an ear of corn half eaten. Yes sir, old ringtail's dining room.

We were just entering the thicket from the corn field, when Old Bill streaked past us like a house afire. Ken says "You'd better call him, here's where a pussy's been digging." But I said "no let him go, this is an ideal place to hit a 'coon". "Get him Acey Boy, go get him" I told the pup, and a black streak vanished after Old Bill, who had begun opening up. Only a matter of seconds and Ace's long bugle bawls joined the shorter ones of Bill's. Sweet music to the hunter's ears.

"That's 'coon." I says, "I can tell by the excitement in the old dog's voice when he hits a 'coon trail." He really talks to them.

Across that bottom land, thru the swamp and up the slope on the other side, went the hounds. We started to follow. Did I say started? Well, anyway, when we got in that underbrush a hundred feet, we might as well been in the jungles of Africa. Sometimes we could squeeze through, mostly on our hands and knees. Such a thicket you never saw, and all the time those hounds just driving for all they're worth. Then all of a sudden their pace slowed. Ace was silent, and Old Bill's bawling less furious. Now Ace opens at intervals, and Old Bill seems to be mumbling and cussing to himself. That old 'coon was opening his bag of tricks; probably on our old rail fence or tapping trees. But not for long. That black pup's nose is too good for that. They're off again, Old Bill talking vengence, and such bawling from that pup I never heard. I thought he was swallowing that 'coon's tail sometimes. He just couldn't seem to get one bawl out 'till another one was pushing right behind it.

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Old Bill soon got a throat hold.

# The Land Purchase Program

« « By W. Gard. Conklin

THE first purchase of State Game Lands was made in 1920, the year following the passage of an Act of Assembly authorizing expenditures from the Game Fund for such purpose. During this period of 21 years, title has been secured (as of February 25, 1942) for a total of 689,260.7 acres, comprising 171 units, distributed through 61 of the 67 counties of the State.

Adams, Dauphin, Delaware, Lehigh, Montgomery and Philadelphia Counties are the only ones in which State Game Lands do not exist, although it might be well to point out that in Allegheny County there is but one small tract containing only 65.8 acres. The possibility of acquiring any acreage whatever in counties like Philadelphia, Delaware and Montgomery is practically nil, since land in these counties can not be purchased at prices the Commission is justified in paying for lands to be used merely for game management purposes.

The hunting pressure in Adams County is not sufficiently heavy to create a serious problem, so no special effort has been exerted to acquire game lands there. The pressure is exceedingly heavy in Lehigh County, and in an attempt to relieve that situation, at least to make a beginning, the Commission recently decided to secure, through condemnation proceedings, certain lands on the southern slope of the Blue Mountain. The primary reason for exercising its right of condemnation in this particular instance was that title to the land is defective, and there seemed to be no other course to follow. In Dauphin County the hunting pressure is relatively heavy, and it is hoped that game lands will sooner or later be acquired in that section.

A total of $2,638,258.31, or an average of $3.82 per acre, was paid for the 689,260.7 acres acquired to date, exclusive of other acquisition expenditures incidental thereto such as securing options and making land examinations, title abstracting and conveyancing, boundary line surveys and mapping. No fixed price per acre is or can be established, other than the maximum specified in the law. Prices paid vary with the type of land, i. e., whether forest or farm; its location, the character, age and size of forest growth; and the suitability of the tract for game management purposes. Each tract is considered on its own merits by the Commission, and final action on the purchase option is taken in accordance therewith.

Only 35% of the so-called 75c Fund is now allocated to the Division of Lands, the other 65% being allotted to the Division of Game Land Management. Fortunately, a fairly large proportion of Federal Aid in Wildlife Restoration Funds is now being allocated for land acquisition, making it possible to satisfactorily continue the land purchase program. In this connection, attention is invited to the fact that a considerable portion of the moneys allocated to the Division of Lands cannot be applied to actual purchases because such activities as title, survey, and mapping work, land leasing projects, and other essential expenditures require sizeable sums annually.

(Continued on Page 25)

Photo by Dr. C. S. Apgar
State Game Lands No. 49, Bedford County.

Since last reported in the January 1942 issue of the Game News, title has been vested in the Commonwealth, for use of the Commission, for the following tracts of land:

| County | Grantor | Acreage | State Game Lands Number | Present Total Acreage |
|---|---|---|---|---|
| Berks | Emma Koch | 51.4 | 110 | 7,184.3 |
| Bucks | Wm. Newton Hoot | 73.9 | | |
| (5 small | Albert R. Frederick | 13.0 | | |
| tracts) | Lizzie Stefanowitz | 4.0 | | |
| | Curtis Schrier | 24.5 | | |
| | John B. Rausch | 5.7 | 157 | 947.7 |
| Carbon | Mary J. Andrews | 37.0 | 141 | 1,136.1 |
| Clarion | Edna B. Watson | 77.0 | 45 | 3,303.8 |
| Crawford | Leon Van Cise | 102.1 | 122 | 1,521.4 |
| Erie | W. Everett Benson | 258.3 | | |
| (2 tracts) | Frank M. Lorei | 30.8 | 109 | 1,444.5 |
| Erie | John McNurney | 161.2 | 190 | 161.2 |
| Erie | John Eastman | 126.4 | | |
| (3 tracts) | Jay B. Blakely, Ex. | 297.6 | | |
| | M. R. Donaldson | 48.9 | 191 | 472.9 |
| Erie | Stella Mack | 97.3 | | |
| (4 tracts) | Orren Mack | 38.7 | | |
| | Robert McLallen | 82.3 | | |
| | V. B. McGahen | 103.2 | 192 | 321.5 |
| Fulton | Robert G. Alexander | 117.0 | 65 | 3,783.2 |
| Indiana | John C. Arnold | 172.9 | 174 | 3,052.7 |
| Lycoming | G. E. Rohrbach | 171.5 | 134 | 5,926.5 |
| Luzerne | Jeddo-Highland Coal Co. | 2,531.8 | 187 | 4,238.9 |
| Mercer | Farrah Estate | 99.7 | 130 | 945.6 |
| Monroe | Charles H. Berg | 10.57 | 38 | 4,889.3 |
| Northampton | Dora Schland | 560.1 | 168 | 841.0 |
| Pike | Kneeland Moore, et al | 1,000.5 | 116 | 2,678.8 |
| Union | H. Elizabeth Dyer | 284.8 | 193 | |
| Union | Charles R. Reagan | 10.9 | | 295.7 |
| | Total | 6,593.07 | | |

The Commission at its meeting January 8, 1942, agreed to purchase the following tracts:

| County | Township | Owner | Acreage |
|---|---|---|---|
| Berks | Albany | David Isecovitz, et al | 189.0 |
| Blair | Catherine | Altoona Properties, Inc. | 2,635.5 |
| Cambria | Reade | | |
| " | White | Charles Weeks and Oliver Rothert | 4,790.0 |
| " | Dean | | |
| " | Clearfield | | |
| Centre | Boggs | Mrs. Thomazine P. Curtin, Extrx. | 1,700.0 |
| " | Ferguson | Theodore Davis Boal Est. | 3,876.0 |
| Crawford | Bloomfield | County Commissioners | 200.0 |
| " | Bloomfield | Federal Land Bank of Baltimore | 211.0 |
| Lycoming | Plunketts | John L. Schneider | 50.0 |
| " | Creek | | |
| Sullivan | Colley | Morris Lumber Co. | 102.0 |
| Union | Limestone | J. Raymond Beaver | 200.0 |
| " | Limestone | Blanche E. Diehl Boob | 14.0 |
| " | Limestone | Lott E. Bechtel | 55.0 |
| " | Limestone | Mary Hackenberg | 10.0 |
| | | Total | 14,032.5 |

# Fox Hunting in Chester County

## By Chester Mather

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Photo by LaMar Mumbar

**Fox hunting pack owned by W. Newbold Ely, Jr., M.F.H., Philadelphia, Pa.**

THE sport of foxhunting has been carried on regularly and continuously in Chester County Pennsylvania, since well before the Revolution, and the customs and traditions of this old sport are deeply rooted in the soil of the county.

Most of us are familiar with the foxhunt described so well by the Chester County author, Bayard Taylor, in "THE STORY OF KENNETT", a novel dealing with a period so shortly after the Revolution that its hero, Gilbert Potter, while riding across the Brandywine at Chadds Ford, took note of the battle still to be seen on the creek banks.

The Chester County poet, James Bowen Everhart, in his poem "THE FOX CHASE", published in 1874, gives a beautiful description of a run over the rolling hills that flank the Brandywine. Its opening stanza:

"Wide o'er the braes of Birmingham—
All rife with song and sweet with balm,
Where granges trim, with rolling soil,
Are fair to view and kind to toil,
There rose as fresh and gay a morn,
As ever answered hunter's horn."

George Washington not only stood first in war, first in peace and first in the hearts of his countrymen, but also stood first among the foxhunters of his time. His diary indeed is largely a foxhunting diary, as it contains day by day accounts of his days in the field with his pack of foxhounds at Mount Vernon, with detailed notes of the performance of individual hounds, the number of foxes found, whether red or gray, and the names of friends who enjoyed the sport with him. It has been stated on good authority that perhaps the most potent reason which caused Washington to refuse a third term as President was his determination to have a few more seasons of foxhunting in Virginia while still physically able to enjoy the sport. Thus foxhunting may have been primarily responsible for the establishment of the "no third term" tradition.

But to cast back to Chester County—there is no record that George Washington ever rode to hounds in Chester County, but during the Battle of the Brandywine he was called upon to make a ride there in which his experience and skill as a cross-country rider must have stood him in good stead. History does record that, on September 11th, 1777, Squire Thomas Cheyney, a Chester County foxhunter, mounted on a good gray mare, rode full speed from the vicinity of the forks of the Brandywine to Chadds Ford to warn Washington that a British and Hessian column had crossed the Brandywine above the forks and was approaching the Continental Army's right flank from the north. When, after considerable difficulty, Squire Cheyney succeeded in delivering this news to Washington in person, the General ordered him to lead the way to the point toward which the enemy column was marching. According to contemporary accounts, the Squire rode a line straight across country to Birmingham, taking a number of big snake fences on the way with Washington, Lafayette and other staff officers following his lead at, we hope, "a safe hunting distance"!

General Washington arrived in time to direct the formation of the brigades of Generals Sullivan, Sterling and Stephens in a position to stand off the attacks of Lord Cornwalis's detachment long enough to enable the Continental Army to make good its retreat to Chester, thus averting a disaster that might well have ended the War of Independence there and then.

When Lafayette was about to sail for home after the War of Independence had been won, he asked Washington what he might send him as a gift from France. Washington told him that he would like nothing so much as some French hounds as he had heard so much about their fine voice and keen nose. Upon his return Lafayette shipped seven French hounds to George Washington in Virginia. They arrived at Mount Vernon via New York on August 24th, 1788, and were hunted the following November. Their voices are described as being "like the bells of Moscow". As a result of this importation, many of our present day American foxhounds show definite traces of French hound ancestry.

To the ear of a foxhunter no sound compares in melody with that of a pack of foxhounds in full cry, and the wooded hills of Chester County echo to that sound today as they did in years gone by. It is a sound equally sweet to the ears of the "hill-topper" who is content to enjoy the sport from some point of vantage as it is to the "thruster" whose aim is to keep in close contact with the pack, be the obstacles what they may.

Most of Chester County is regularly hunted throughout the season by numerous packs of foxhounds. Some of these packs are owned by individual landowners, some by foxhunting farmers and others by foxhunting clubs, but all are conducted with the same purpose—that of furnishing sport to friends and neighbors.

The hunt described in "THE STORY OF KENNETT" was a "drop hunt", held at a tavern, and was in the nature of a special

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# Plant a Game Food Plot

## By C. C. Freeburn

**Photo by the Author**

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THE major task of all Americans today is to attain an early and complete victory in the war in which we are engaged. In order to do this each and every one must, of necessity, expend a great deal of effort and money in our fight against aggression. This means, of course, that much less time will be available for recreation and many other pursuits in which we formerly engaged. Because recreation is so extremely essential in these trying times, it becomes necessary for us to obtain the utmost enjoyment out of every available moment of relaxation which can be crowded into busy days.

If a study is made of all types of outdoor sports to determine which ones will afford the most satisfaction in the least possible time, it will be found that hunting and fishing stand well toward the top of the list. Hunting, of course, is available to most people for only a month and a half during the year, but interest need not be lost in wildlife between hunting seasons. Any number of things can be done which will furnish relaxation, permit contact with wild birds and animals, and likewise be of great benefit to the creatures which provide the sport of hunting.

One of the most important of these is to plant one or more small areas to Pennsylvania Game Food and Cover Plot mixture where they will do the most good in furnishing sustenance and sanctuary for our small game species during the crucial fall and winter months. Plots can be planted without much time, trouble or expense, and will compensate anyone who is willing to try it a hundred fold. These plots will also go a long way in assuring continued good hunting conditions in the sportsman's favorite hunting locality.

First of all fun and exercise can be gotten from preparing the ground. This can be done by plowing the ground or breaking it up with a harrow. The planting is easily accomplished by broadcasting and can be carried on by anyone. Merely be sure that the mixture is not planted too thickly; 12 or 15 pounds to the acre should be sufficient. It is also well to remember that good soil or the use of fertilizer is essential.

In case those who are interested cannot prepare the soil and plant the mixture themselves, arrangements can no doubt be made to have someone else do the necessary work if the seed is provided. In many cases it may be possible to interest farmers, Boy Scouts, or other friends and acquaintances in planting plots on land which can be secured for the purpose. Clubs and organizations of all kinds can help by appointing committees for this worthwhile work.

Second, much enjoyment is received by those who plant a plot in watching the tender shoots push through the earth. Growth will soon become rapid, so much so that it is almost possible to see the stalks increasing in size from day to day. Wildlife will start to visit and use the plots very early. If deer are present they will commence to browse on the green shoots almost as soon as they appear. Before long heads will start to form on the stalks and seeds will mature and the wild birds and animals will be making almost constant use of the plots. One of the greatest enjoyments comes from observing all of this.

For those interested in photography, many chances will be available for taking interesting snapshots. It will also enable persons having plots to observe nature at first hand, and to learn much about the habits of the wild birds and animals that make use of the plots. And more important than all is the satisfaction which is experienced in the knowledge that something has been done to better food and cover conditions for wildlife during the critical winter months when it is most needed.

Nearly all readers of the Game News have heard about the Pennsylvania Game Food and Cover Plot Mixture and many have used it, but there are others who will want to know what it is. It is simply a mixture of grains which was decided upon after exhaustive experiments by the Pennsylvania Game Commission, and which has been extensively planted by Commission field employees and sportsmen for the past three years. Its purpose is to supplement the natural food and cover for wild birds and animals at a minimum of cost. The mixture contains the following grains, in the amounts shown, for each 100 pounds of mixture:

| | |
|---|---|
| Broom Corn (Dwarf Japanese) | 20 lbs. |
| Sorghum (Early Amber) | 20 lbs. |
| Sudan Grass | 5 lbs. |
| Buckwheat (Tartary) | 5 lbs. |
| Sunflower (Small Branching) | 8 bls. |
| Hungarian Millet | 5 lbs. |
| Japanese Millet | 13 lbs. |
| Golden Millet | 10 lbs. |
| Colby Milo | 5 lbs. |
| Kaffir Corn (Greeley or Highland) | 6 lbs. |
| Rape (Dwarf Essex) | 1 lb. |
| Hairy Vetch | 2 lbs. |

Last year alone approximately ten tons of this seed were planted with splendid results. Many letters from users of the mixture have been received reporting upon the success obtained and outlining plans for planting it again this year. It is hoped that many others will decide to plant one or more such areas this year so that they may decide for themselves the value the plots offer to wildlife.

Other questions arise such as, "How, when, and where to plant the mixture?" It should be planted in small plots not more than one-quarter to one-half acre in size. The plots should preferably be in long narrow strips, and should be located either in or adjacent to good natural cover such as brushy ditch banks, fencerows, gulleys or woodlots. Best results will be obtained if the plots are planted on fertile soil. Where necessary lime and fertilizer should be used. County Agricultural Agents will be able to give the necessary information about the use of both of these in their respective localities. **Not more** than 12 or 15 pounds per acre should be sown broadcast, on a prepared seed bed, anytime from May 15 to June 15. Because of the dif-

(Continued on Page 22)

**Small area adjacent to woodland planted to Pennsylvania Game Food Plot Mixture.**

# CURRENT TOPICS

## IN MEMORIAM

HARRY J. UPDEGRAFF

The Commission, the sportsmen and his brother officers particularly, mourn the untimely death of Harry J. Updegraff, 50, of Shippenville, Game Protector in charge of District 11, who succumbed to a heart attack while pursuing dogs that were chasing deer. Both Mr. Updegraff and his wife took up the trail of the dogs in a heavy snow, but when travel became too difficult Mrs. Updegraff stopped to wait her husband's return. Shortly afterwards she heard seevral shots and called to him. When he did not answer she became alarmed and dispatched two local boys to look for him. They found him where he had fallen.

Harry has been in the service of the Commission for many years as a Deputy Protector and since 1935 as a District Protector, first in Mercer County then in Clarion.

He was well known as a dog trainer, interested in trap and skeet shooting, and was affiliated with the Pennsylvania and Venango County Grouse Trial Clubs and of the Knox Rod and Gun Club.

His death came almost a month after his son, Lieut. Gail T. Updegraff, of the 66th Pursuit Squadron, U. S. Air Corps, was killed in an airplane crash at Langley Field.

## NEW JUNIOR N. R. A. PLANS

The year 1942 will see the greatest single development in the N. R. A. junior program since its beginning sixteen years ago. During those years, junior teams have been accustomed to competition on a postal basis. Now those teams representing high school and similar schools will have the opportunity to compete shoulder-to-shoulder for National and District Team and Individual Championships.

On April 18, 1942, a series of tournaments will be held throughout the country to select the 1942 Scholastic Champions of the United States. Any junior club, college club, senior club, or state association affiliated with the N. R. A. may apply for the privilege of conducting the tournament for each district. It is naturally necessary that the sponsoring group be able to furnish adequate range facilities and personnel to successfully conduct such a tournament. It is also required that teams representing at least three separate schools be assured. Awards, targets, publicity, referees and complete instructions will be furnished by the N. R. A.

To assist sponsoring organizations in defraying expenses, fifty per cent of all entry fees will be returned to them to be added to their general funds. Complete information may be obtained from the Junior Division of the N. R. A. In addition to the Scholastic Championships, any junior tournament meeting certain requirements may now be registered in the same manner and with the same advantages as the popular senior Class C tournaments. Several highly successful registered junior tournaments already have been held.

A review of the Annual Report of the National Rifle Association for the year 1941 discloses some interesting facts, namely:

That no State or Federal laws were enacted imposing new restrictions on the purchase, possession, or use of firearms by reputable citizens. Indeed Congress went on record, for the first time since the adoption of the Bill of Rights, to the effect that the right of the individual citizen to possess and bear arms should not be infringed!

Many of the non-coms and junior Army officers who are today instructing less fortunate selectees in the mysteries of guns and ammunition received their instructor's jobs because the N. R. A. Junior program gave them the basic shooting knowledge; and the training, discipline, and confidence which made them stand out from the crowd when training camp was reached. And the best part of it is that the Junior program is steadily growing. For instance in 1939 there were 764, in 1940, 937, and in 1941, 1,019 Junior Clubs.

The Pennsylvania Interscholastic Athletic Association has taken a step which we hope will soon be followed by other states. Rifle shooting has been recognized as a major sport for Pennsylvania schools and it is hoped that more and more of our educational institutions will encourage it. **Not a single shooting accident has occurred in the history of any Junior Rifle Club**, another reason why these groups should be sponsored wherever possible.

College rifle shooting may suffer a set-back in 1942 but the foundation is laid for a prompt recovery when supplies are again available. College Clubs have increased from 109 in 1940 to 141 in 1941.

The growth in registered tournaments also increased during the year. There were 218 with 15,271 competitors in 1941 as compared with only 176 with 10,836 competitors in 1940.

The number of persons to qualify and receive permanent classifications also increased considerably. In pistol shooting alone 9,924 were classified either as Master, Expert, Sharpshooter, or Marksman in 1941 as compared to 5,273 in 1940 and 2,840 in 1939. Over 900 more were classified in the use of the Small Bore Rifle in 1941 than in 1940. All of the above speaks well for the future program of the N. R. A., which now has a total membership of 53,948, including 44,951 annual members and 8,997 life members.

## IN MEMORIAM

FRANK G. NORRIS

Sportsmen all over the State, particularly Northwestern Pennsylvania, grieved deeply over the loss of one of the outstanding members of their fraternity, Frank G. Norris, Butler County Treasurer-elect and widely known outdoorsman who died suddenly January 1, of a heart attack. He was to have taken up office as treasurer early the following week.

Mr. Norris, father of George L. Norris, District Game Protector at Warren, was one of the founders of the Northwestern Division of the Federated Sportsmen's Clubs and the Sportsmen's Council of Division "F", having served as both treasurer and vice-president.

He sponsored and was also chairman of the committee for raising funds for the memorial to Dr. Joseph Kalbfus, First Executive Secretary of the Game Commission.

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Sportsmen's organizations that are looking for local conservation projects should not forget the possibility of landscaping and utilizing vacant upgrown lots. Most lots nowadays in time become borough or city dumps. Cleaning up and making such areas useful for recreational purposes is good conservation as it indirectly helps make the community a better place in which to live.

# CURRENT TOPICS

Photos by W. L. R. Drake

## HARRISBURG BOY SCOUT RECEIVES COVETED AWARD

At a Recognition Rally of the Harrisburg Area Council, marking the 32nd Anniversary of the Boy Scouts of America, J. (Jack) Frank Ritter, Jr., Harrisburg, Pa., was awarded the Dr. W. T. Hornaday Gold Medal Award for Conservation—only the fifth of its kind ever made in the country, and the second to be won by a Pennsylvania Scout. The presentation was made by Seth Gordon, Executive Director of the Pennsylvania Game Commission, and George H. Wirt, Chief Forest Fire Warden, both members of the Scout Council.

That Scout Ritter merits this coveted prize is demonstrated by the painstaking energy with which he worked to acquire it. His desire to learn more about conservation came while he was in the act of acquiring his bird study merit badge, and from that time on he devoted most of his spare time to a study of conservation, using Federal and State publications on the subject. He practically applied everything he learned—built feeding shelters, camp fire places, birdhouses, encouraged landowners to carry on good conservation practices, helped other scouts to acquire merit badges of various kind, and so on.

At the time he did not realize that his work was later to be a challenge to all other Scouts —even to those who received Eagle recognition during the same ceremony at which he received his cherished award.

Pennsylvanians are proud, and congratulate Scout Ritter for having accomplished a difficult task. This record casts an interesting sidelight on his accomplishments. For instance, he became a member of the Boy Scouts June 17, 1937 when almost 15 years of age, was made Second Class Scout in 1937, First Class in July 1938, Star Scout in 1938, Life Scout in March 1939, Eagle in 1939, was awarded the Bronze Palm in 1940, the Gold Palm in September 1940, and the Silver Palm in March 1941.

He held positions of Senior Patrol Leader, Junior Assistant Scoutmaster, and Assistant Scoutmaster, Troop 11, Christ Lutheran Church, and was the only Scout in the city to be awarded the Organizer Award, in 1937. He holds a three-year perfect attendance record.

He was awarded three bars as a Forest Guide by the Department of Forests and Waters for three consecutive years, and was Third Officer in charge of the Chesapeake Sea Scout Cruise. Later he was appointed First Mate in the Harrisburg Unit, attained ranks of apprentice, ordinary, able, and Sea Scout, and was awarded the Long Cruise Badge.

He became interested in conservation and game refuges particularly by a note he observed in the Scout Manual about an Indiana Boy Scout who had sold 266 farmers on a refuge program. He decided to beat that record and personally visited, on his own time and at his own expense, 300 landowners within a 75-mile radius of Harrisburg, all of whom signed pledges to set aside wildlife sanctuaries of one acre or more. He mostly took "pot-shots" on his own initiative, visiting from 4 to 8 farms a day.

Other activities in which he engaged included a six-week Boy Scout Conservation program on the radio, writing articles on conservation for local newspapers, distributing Wildlife and Forest Fire Prevention posters, giving weekly talks on conservation to farmers, citizens, and Scout Troops and assisting Scouts in bird study as a Merit Badge Counsellor.

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Photo by C. Gordon Krieble

Scout Ritter being congratulated by Albert Allen, Chairman, Executive Board, Harrisburg Area of Boy Scouts, with a Scout handclasp as George Wirt, Chief Forest Fire Warden, Department of Forests and Waters, Seth Gordon, Executive Director, Game Commission and Harry H. Hunter, Chief Scout Executive of the Harrisburg Area of Boy Scouts look on.

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# CURRENT TOPICS

Photo by C. E. Doyle

**Another drama of the wild occurred when the deer shown in the above photo got its head wedged in a hole of a tree, which was apparently used as a salt lick. The salt was placed in the larger opening, and it is supposed that while other deer were using it another, perhaps too anxious to wait, forced its head through the opposite much narrower opening.**

## SPORTSMEN'S WEEK PROCLAMATION

By action of the Pennsylvania Federation of Sportsmen's Clubs in convention assembled at Harrisburg, the President was instructed to declare a week to be set aside and known as Sportsmen's Week for the purpose of bringing before the public the views, objectives and activities of their various clubs and associations. This action was very timely, for if there was a time when the lovers of the great outdoors and pure streams should be banded together it is now.

The great State of Pennsylvania is known from coast to coast as the last hunting and fishing Paradise. This being true then it behooves every member of this Federation to put forth during this Sportsmen's Week every effort to bring into membership in the Federation all nature lovers, hunters, fishermen, pure streams advocates, conservationists, etc. By doing this Pennsylvania's great name will live forever in the hearts of all true Americans.

I therefore declare and set aside the week of April 1 to 8, 1942, to be known as Sportsmen's Week.

Let every member start out Wednesday, April 1, and get as many new members for his club as possible. Every new club member is a Federation member. Boost your club; boost the Federation.

Your sales talk as to why a sportsman should become a members of your club and affiliated with the Pennsylvania Federation of Sportsmen's Clubs can be found in Resolution No. 1 of the inclosed copy of the Minutes of the Eleventh Annual Meeting. Look them over and study them, and they will be a big help to you in the campaign.

M. C. MERRITTS, President.

March 4, 1942.

Photo by Wm. C. Grimm

**Eagle nest at Pymatuning being rebuilt after it had blown to the ground.**

## NOTES FROM THE FIELD

The following is a copy of a letter received by E. R. Bomberger, Secretary, Hempfield Farmers & Sportsmen's Association, Salugna:

"Thank you gentlemen for the very fine one legged cockbird you were good enough to provide for me last fall. Enclosed find 2 Bucks for replacement."—Karl Ort.

Attached to the top of the letter were the leg band and two one dollar bills. In appreciation of his good sportsmanship, which so many lack, Mr. Ort was sent a letter of appreciation and an honorary membership in the Hempfield Asscoiation.

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"There seems to be deer anywhere I go. Was over quite a large area of State Game Lands 143 recently and they seem as numerous as in former years. Snowshoe rabbits are showing up good this winter on all the lands in this group."—Game Protector John A. Hopkins, Warren County.

"On January 17 I noticed where foxes were crossing the road leading to Refuge No. 48. I immediately made a water set, using two traps and pork cracklings soaked with anise for bait. I scattered cracklings around on the snow forming trails leading into the set. Nothing happened for a few days and then on January 22 I found that both traps were missing. About 40 steps from the set was a female gray fox that had wrapped the metal drag and chain around some brush. Mr. Sedam, Division "D" Land Technician, who was with me, assisted in the hunt for the second trap. About an hour later I found a male gray fox in the other trap. It managed to pull the drag up a steep bank and was fast at a hollow stump. I have managed to trap a number of foxes in recent years but never have I trapped two foxes in the same night in the same set."—Albert R. Bachman, Game Protector, Bedford County.

# CURRENT TOPICS

## THOSE IN SERVICE

**Another employe of the Commission was recently called upon to do his bit for Uncle Sam—William C. Grimm, Linesville—and the Commission and its entire personnel wish him Godspeed.**

**Bill has been employed on a Pittman-Robertson project in Northwestern Pennsylvania, and is stationed in the Medical Unit at Camp Stewart, Georgia.**

**Naturally he will appreciate a line from his many friends.**

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In response to our request for records of big game animals set forth on page 32 of the December issue we have received the following:

Measurements:
Length on outside curve A. . .R. 22¾" L. 22½"
Circumference of main beam B. .R. 3¾" L. 4"
Circumference of burr C. . . . . .R. 6½" L. 7"
Greatest spread D . . . . . 23¼"
Number of points on each horn: Right 4 Left 4
Exact locality where killed, New Brunswick Township, Schuylkill County.
Date killed, December, 1941.
By whom killed, Randolph Rowe
Owner, Randolph Rowe
Address 830 Hampden Blvd., Reading

Remarks: Dried velvet on 1st point and beam of right side.

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These are tough days for the careless typist. She can't use an eraser because rubber is scarce and she can't start a new letter because of the paper shortage.—"Foreign Service, V. F. W."

Splendid trophy bagged by Randolph Rowe of Reading, the measurements for which are listed above.

Photo by Townsend Godsey

Members of the National Conference on Conservation Education and Publicity in outdoor session at Pickwick Park, Pickwick Dam, Tennessee. Nineteen States were represented including Pennsylvania.

"In December one day about noon, while on routine patrol in the vicinity of Laurel Summit, Westmoreland County, my attention was attracted by shooting. I started in the direction of the shots and soon met a hunter leaving the woods. Upon my inquiry about the shooting, he stated that 'some fool was shooting at a mark.'

"I hurried in the direction of voices I heard. As I climbed a hill toward a group I could now see, I stopped in amazement and began to wonder if my eyes were deceiving me. There was a group of five hunters with a doe standing docilely among them; two of the group had their arms around its neck. A short distance away was a small fawn, not quite as tame as its mother, and another hunter trying to get closer to it. This hunter had a rock in his hand and was taking the stance of a baseball pitcher about to put a "Dizzy Dean" third strike across the plate. He appeared to be so intent in his endeavor that I really think he meant to kill the fawn. I called to him not to injure the animal unless he was prepared to pay a hundred dollar fine. He immediately dropped the rock and started to walk away. I went up to him and questioned him about his actions and checked his license certificate.

"We then went back to join the other men. They were seated on a fallen log, the deer nosing at their backs and at their pockets. I asked them to tell me the secret of being able to find deer in the woods that would eat out of their hands. They said the deer had just wandered up to them; they couldn't explain their presence nor could they understand it. They were as puzzled as I was. They got quite a kick out of it, and had taken two rolls of pictures. One fellow explained that he had fed them his entire lunch.

"The question of who was guilty of the 'shooting at random' was soon settled. The fellow who tried to 'Throw a strike' at the fawn was the guilty person. He was hunting alone and not a member of the party of five. He had been trying to cut an upper limb from a dead tree with a 12 guage pumpkin ball. never realizing the danger that existed with the woods so full of hunters. Needless to say he paid for his carelessness.

"Later in the day, I learned the source of the tame deer. They had escaped from a roadside menagerie nearby early in the fall." —Robert D. Parlaman, Game Protector, District G-11, West Newton.

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"At the California State Teachers' College they had children's summer school. In order for the teachers to get their necessary credits they were given an opportunity to teach various subjects, games, etc. In the afternoon they met out-of-doors at the school's recreation area (Propagation Area G-4). On two occasions I was requested to give short talks (1 hour) on conservation, etc. The first time there I had with me a live 'coon and talked about it and other fur-bearing animals.

"On my second visit I talked about song birds and their conservation, birdhouse building, and related subjects of interest. I passed out the Commission's free literature on song birds and read from that. Asked the kids to name birds and describe them. Also on another trip there I talked about snakes. Had a kid's blackboard there and drew pictures of the identifying characteristics of poisonous and non-poisonous repties. I had a live blacksnake for demonstration. The live stuff is the secret. This group was from about 10 to 14 years old.

"At the Charleroi Junior High School Junior Sportsmen's Club, the teacher-sponsor and I directed their annual picnic. We took

(Continued on Page 30)

# Future Problems Confronting the Sportsmen

*Continued from Page 5*

Thousands of pheasants are released annually.

tions where purchases of suitable size could not be justified, was not extended during 1941. We desired to observe whether the new special Wildlife Projects sponsored by sportsmen's organizations might increase sufficiently to take the place of the state-sponsored cooperative areas.

At the beginning of 1941 we had 82 such projects, comprising 1,816 farms, aggregating 151,527.2 acres. At the close of the year there were only 79 of them in operation with a total of 147,573.9 acres, the loss being due largely to the sale of farms and cancellation of agreements.

We opened the year with 75 Special Wildlife Projects in operation, containing 29,872 acres. Just prior to the hunting season there were 109 of these projects, aggregating 40,599 acres, a net increase of 10,727 acres. This was a wholesome growth, but nothing like we anticipated. We still feel that this locally sponsored program is excellent, and that in time it will relieve a considerable portion of the posted lands problem in various localities. However, it has not expanded rapidly enough, and at our recent meeting we again decided to push the Cooperative Farm-Game Program and to develop the present areas to the fullest extent possible consistent with the desirability of each project, also to increase the size of them as much as may be practicable from an administrative standpoint, even though a given project may contain as much as 10,000 or more acres. We also decided that projects which have not proved satisfactory shall be abandoned or relocated, that for the present new projects, should not be sought, and that any areas found desirable for this program should be carefully selected to avoid the mistakes made at the beginning of this venture. In other words, our efforts should be devoted wholly to areas that will produce results. Here again is a problem for the sportsmen's organizations. They can help the Commission greatly, and I know they will do their best.

I shall not take time to discuss other types of projects, such as archery preserves, dog training preserves, propagation areas, etc., for which the Commission is now responsible, but I am pleased to report that through our several programs we have been able to balance up our land holdings in the seven field administrative divisions during the past decade in a most gratifying way. The compilation at the bottom of this page is self-explanatory:

### Lands Management

I have already referred briefly to the land managerial responsibilities of the Commission, which at present aggregate 1,000,000 acres. While we can buy lands and do nothing to condition them so as to make them produce the maximum amount of game annually, we believe it is only good business to manage our land holdings in an efficient, intelligent manner. As we buy or lease more lands we must expect to use more man-power, more equipment, more of this and that, and the total requirements become increasingly larger. Naturally the problem is to keep such work within the **realm of practicability.** We are convinced that more men should regularly be assigned to this work but under present conditions we feel it would be unwise to establish additional managerial groups. After the war is won we shall be in better shape to do it. We are satisfied, however, that the group management plan now in operation is far superior to the old method. We are getting much better results for the money expended.

During the period when free service was available from the CCC, WPA, DPA, and NYA programs we took advantage of every possible opportunity to improve our land holdings. For the time being, however, these services are practically non-existent, although we have had an excellent statewide master WPA project approved, calling for Federal funds in the amount of $1,132,000 which is ready to become operative as men become available. At present we are using only around 550 WPA workers daily as against almost 3200 at the peak last year.

In this connection, we are working with various agencies in the development of a big Public Work Reserve Program, to swing into action immediately after the National Emergency, and we shall do our best to take full advantage of that when the time comes so that we may further improve our game lands and other areas under the Commission's control.

### Seedlings for Game Food Planting

In recent years we made arrangements with the State Department of Forests and Waters to develop a special area at the Clearfield Nursery for the production of game food seedlings for the Commission. That project will produce about all the seedlings the Commission can use wisely on its own lands, approximately 1,200,00 annually. These, together with one to two million evergreen seedlings obtained from the Department, will give our men plenty of planting work to handle.

There is sentiment among the sportsmen's groups and individuals for the development by the Commission of a nursery in which to produce game food producing seedlings for public distribution to those who desire to plant private lands. Naturally we could not justify any free distribution of such stock, but we are exploring the possibility of doing it on a cost basis, somewhat comparable to the method under which the Department of Forests and Waters distributes seedlings for forest crops. This is something to consider, a problem for the future.

There is no question about the wisdom of providing more food and cover for our wildlife, and I am pleased to report that during the spring of 1941 approximately 10 tons of Pennsylvania Game Food and Cover Plot Mixture were planted. The growth of this venture is most pleasing, and we have again taken steps to provide a central source from which this mixture may be obtained this spring. Here is another job which sportsmen alone can handle on private lands, and it is a splendid way to get landowners interested in wildlife.

**COMPARATIVE STATEMENT OF LANDS SECURED FOR GAME MANAGEMENT PURPOSES**

(Does not include lands under contract for purchase)

| DIVISION | May 31, 1930 (Acres) | May 31, 1934 (Acres) | May 31, 1938 (Acres) | Jan. 1, 1942 (Acres) |
|---|---|---|---|---|
| A | 17,473 | 21,415 | 60,800 | 116,272.0 |
| B | 27,650 | 46,309 | 77,082 | 133,488.0 |
| C | 54,631 | 125,667 | 144,397 | 168,916.0 |
| D | 33,751 | 66,535 | 109,165 | 136,115.0 |
| E | 117,513 | 185,739 | 203,077 | 218,252.0 |
| F | 30,383 | 55,224 | 79,267 | 112,465.0 |
| G | 31,793 | 29,416 | 79,374 | 113,620.0 |
| Total | 313,194 | 530,306 | 753,162 | 999,128.0 |

### Relations With Landowners

In many sections of the Commonwealth the sportsmen have accomplished wonders in their efforts to improve relations between the sportsmen and the farmers. Much still remains to be done. One of the most productive efforts in this field has been by sportsmen's groups having safety zone posters of their own printed for distribution to farmers who agree to take down their trespass signs and allow hunting if the sportsmen will help keep thoughtless hunters from shooting too close to their buildings. There is room for much more work along this line, and the sportsmen's groups are the ones who can do it best.

One problem which has given us cause for much concern during recent years is the growing tendency for a few individuals to band together, sometimes so-called sportsmen groups, then go to farmers with trespass posters and offer to post their lands in return for exclusive hunting rights thereon. In some cases they actually offer cash for these hunting privileges. In many instances the landowners fall for the plan, and a few selfish fellows enjoy what amounts to private hunting grounds. Then they turn about and pull down the posters at the end of the season, or even sooner, in the hope that our officers will innocently stock the grounds with game provided through public funds. Even though we have given much study to this problem, we are frank to admit that to date we have found no legislative solution to recommend. But sooner or later a way must be found to curb, or at least regulate, this practice, as it is creating a very unhealthy condition in a number of localities.

I shall not dwell upon the many other ways in which public-spirited groups of sportsmen may help to bring about better relations with landowners, except to urge that you all go the limit to that end. After all, the farmer can be the sportsmen's best friend; or he may be his worst enemy by merely making his land unsuitable or unattractive to wildlife, and by prohibiting hunting.

### Game Stocking

It seems unnecessary to review our game stocking program of the past year. You are all familiar with it, and the totals, in round numbers, will suffice. We shipped from our own game farms over 35,000 pheasants, more than 14,000 bobwhite quail, over 2,000 Hungarian partridges, and almost 1,400 wild turkeys. We also purchased 27,000 pheasants, 7,000 quail, and almost 40,000 cottontail rabbits. In addition we trapped and transferred 33,000 rabbits, 2,900 ringnecks, over 100 raccoons, and 600 gray quirrels.

For the current season, in keeping with our policy announced several years ago, we ordered 30,000 Missouri cottontails and hope to transfer at least 40,000 home-grown bunnies. Had we anticipated the difficulties of shipment due to war conditions we would certainly have eliminated Missouri rabbits entirely this winter. The shippers have been up against it, as have the railroads. Many of our shipments have been on the road entirely too long, some of them five days. And you know what that means. The transfer job this winter has also been beset with war difficulties, but surprising results have already been attained in a number of counties.

With our own farm production and purchases combined, we shall soon release around 50,000 ringnecks and 20,000 bobwhites, and a number of organizations are holding additional pheasants to release. It is felt this is about the number of pheasants that can be used to best advantage, and that to distribute more birds, often in second or third class territory, would not be justified.

This brings up another point I desire to discuss with you. Research studies and field observations convince us that our pheasants should be released much earlier than has been the practice in the past in order that they may get accustomed to their new home and go to housekeeping at the proper time. We have gradually been pushing the release dates forward on an experimental basis, and if you happen to learn of a release in your locality just before a heavy snowfall don't become alarmed. The birds will pull through without suffering. They can easily go two or more weeks without food if necessary. In fact, indications are that they may produce better results if they go through some "lean periods" just as do the birds in the wild.

In connection with our farm program, we have encountered real obstacles, both in the matter of retaining experienced help and in securing wire and other necessary materials. We shall merely have to get along as best we can for the duration.

### Law Enforcement

The redistricting plan for general field administrative work, which became operative on June 1, 1941, got into high gear with much less difficulty than we anticipated and has functioned smoothly. We have been handicapped, however, due to shortage of men. Fortunately very few of our officers to date have left the service of the Commission to take much more lucrative jobs in industry, but we have temporarily lost the services of others to the military forces. With the 24 men in the Training School, all of whom we hope will graduate on February 28, we can fill gaps both in land management and field administrative positions. However, a number of those also will be taken for military service shortly thereafter, their draft boards having very kindly allowed them to finish their courses.

Deputy help was most difficult to secure last fall, and indications are that next fall conditions will be much worse. However, we shall do our best to secure help where badly needed without interfering with National Defense efforts.

In connection with our personnel problems, with which most of you are acquainted, the Commission's inability to compensate its staff on a basis comparable to business concerns has made it most difficult to maintain that morale which is so essential to the success of any enterprise. However, it is hoped that this may be corrected in the near future.

### Past Hunting Season

I could tell you about many more problems which confront you as sportsmen and us as a Commission, but my time is slipping by.

The low hunting accident record in 1941, 27 fatalities as against 43 in 1940, was most pleasing to us all. It shows that the educational campaign is accomplishing results.

Everybody seems to be agreed that rabbit and pheasant hunting was considerably better than the year previous, also that the bear season was better; and that while squirrels, ruffed grouse, and wild turkeys were just as abundant, or more so, the hunting results were less satisfactory than usual due to unfavorable hunting conditions.

When it comes to the deer season, everybody agrees that weather conditions were most unfavorable at the very time when the largest numbers of hunters were afield, and that after the first few days hunting was very limited, not enough to keep the deer moving. At the time of our January meeting a release, which the Commission prepared and sponsored, gave our prediction that the total buck kill would be somewhat between 15 and 18 thousand, or a season comparable to 1936. That was based on information assembed by all the field officers, not guesses on the part of the Commission or its office staff. Tabulations to date satisfy us that the estimate given is approximately correct, and all agree the deer killed were larger, fatter, and carried better racks than in recent years.

It may surprise you to know, as it did me, that with well over 500,000 game-kill reports filed less than 200 letters of complaint were received by the Game Commssion, because the sportsmen of Pennsylvania know that ever since 1927 the Commission has, by successive steps, been endeavoring to reduce the deer herd to a point where the dimin-

(Continued on Page 24)

Friendly relations between sportsmen and farmers are encouraged.

# NOTES ON THE FEDERATION

*Continued from Page 9*

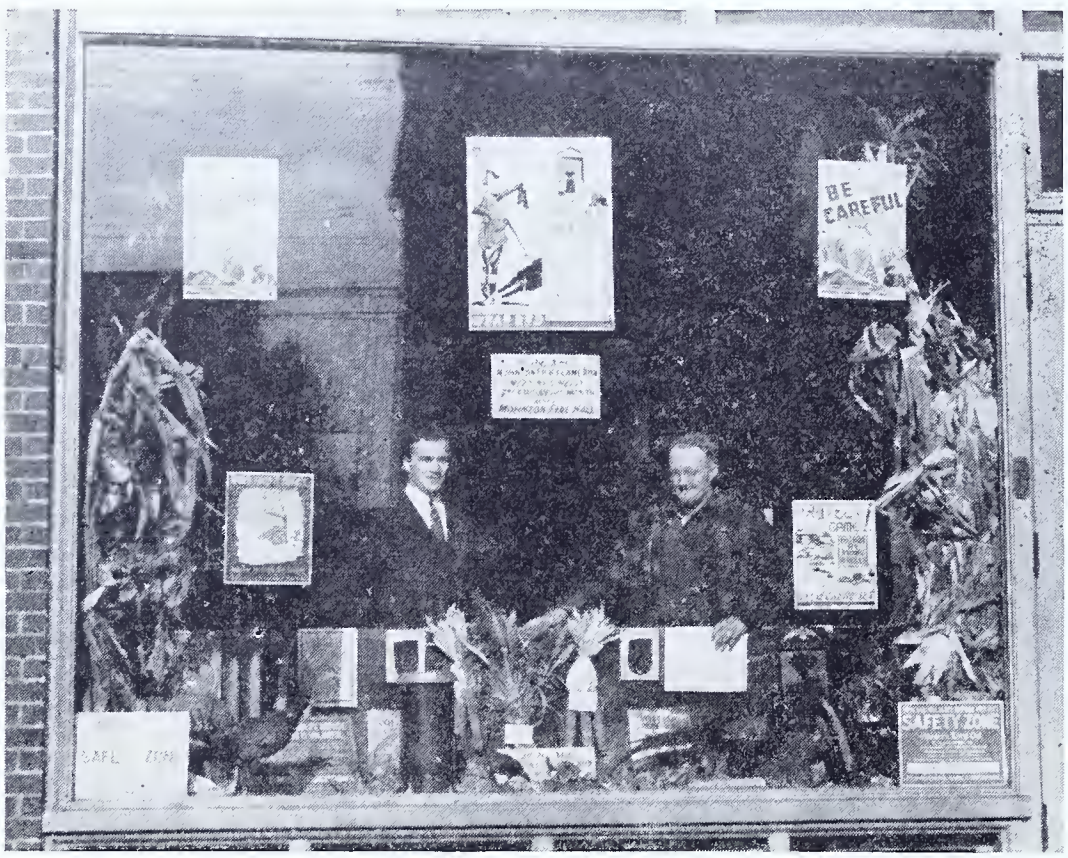


Photo by Allison D. Fisher

**Window display prepared by the Mohnton Fish and Game Association, Mohnton, Berks County, prior to last hunting season in an effort to encourage hunters to obey safety zone and refuge signs, and to hunt safely.**

the conferences brought out some salient facts, particularly with reference to the Delaware-Schuylkill problem as follows:

1. Pollution can and must be eliminated from the Delaware and Schuylkill Rivers.
2. There are no technical problems to interfere with the adequate treatment of industrial and domestic sewage before the effluent is discharged safely into the rivers.
3. The Schuylkill River must be protected against the discharge of fine coal, culm and silt waters by the Anthracite industries.
4. All the facts and factors having to do with the pollution of the Delaware and Schuylkill Rivers are known. No further study, survey research by the Federal Government, or by any other agency is required. Mr. Turner said "You know 'why' this job must be done; you know 'how' this job can be financed; the 'when' remains for you to anwser."
5. If the City of Philadelphia refuses to act, the Commonwealth of Pennsylvania can compel her to act.
6. If Philadelphia and the Commonwealth of Pennsylvania refuse to act, action can be brought through the Federal courts by a suit on the part of Delaware and New Jersey vs. The Commonwealth of Pennsylvania.
7. The report of the Army Engineers on the restoration and conservation of the Schuylkill River provides an adequate plan for the reclamation of this river.
8. The problems of the pollution of these rivers is now up to the people. It can be solved when they have the will to act.

One important approach to the whole problem centers around the public health and welfare of the people rather than the destruction of so many fish, and if this factor is continuously stressed it will serve as an all powerful weapon in helping beat down the forces which have been deliberately subjecting thousands of people to the toxic influence of impure water without taking any humanitarian steps to prevent further pollution. The stream improvement committee certainly deserves a big hand for its unrelenting fight.

### Resolutions

The Resolutions adopted by the convention were many and diversified, and I have classified them according to the department to which they refer for the sake of identification and clarity

Objectives of the Pennsylvania Federation of Sportsmen's Clubs:

1. To conserve the natural resources of our state and nation.
2. To provide adequate laws to prevent the exploitation of natural resources—forests, water, land, game, fish, and song birds.
3. To combine and coordinate the conservation activities of all sportsmen groups into one powerful state federation and also adopt and practice a code of ethics in sportsmanship acceptable to the citizens of our state and nation.
4. To sponsor educational programs designed to inform our people how to gain the health-restoring advantages offered by participation in outdoor recreation—camping, boating, swimming, hunting, fishing.
5. To teach safe methods to pursue in sports activities thus preventing accidents and preserving human life. This applies especially to the youth of our country.
6. To combine the efforts of all sportsmen in regard to conservation of wildlife species. We therefore, appeal to all large and small game hunters, fishermen, trappers, fox hunters, 'coon hunters, and gun clubs, F.F.A., 4-H, Boy Scouts, and any organization devoted to conservation of human and natural resources to join with the Pennsylvania Federation of Sportsmen's Clubs in the effort to conserve the home of wildlife.
7. To cooperate with and coordinate the efforts of all affiliated club members. This is to agree on sound principles as applied to the conservation of natural resources and to gain the respect of our legislators, the farmer, and the landowner and in doing this, the posted land problem will be solved.
8. To cooperate with and support both the Game and Fish Commissions in their effort to practice efficient administrative principles in wildlife management and fish culture.
9. To protect and guard the game and fish fund attained through the license fee system which is not a tax and assure its use for the purpose prescribed by law. Also to see that sound economy is practiced in the manner such funds are used.
10. To guard carefully the present game and fish code which is the basic foundation on which the success on the part of our Game and Fish Commissions in wildlife management and fish culture now stands.
11. To guard carefully the constitution and by-laws of the Pennsylvania Federation of Sportsmen's Clubs so that no principle of law shall enter therein discrimatory to the rights and privileges of true sportsmanship.
12. To oppose any amendment or act of legislature that may deprive a law abiding citizen the right to possess, own, or bear firearms in accord with the Constitution of the United States.
13. To cooperate with neighboring state agencies in reference to reciprocal agreements pertaining to hunting and fishing privileges on borderlines.
14. To prevent the pollution of now clean streams and to bring about the redemption of polluted streams." Adopted.

### Federation Resolutions

1. Proclaiming sportsmen's wildlife week beginning April 1, 1942.
2. Requiring that whenever a resolution is presented and approved by either a division or the State Federation that requires an act of legislature, that responsibility for developing and consummating such legislature rest with the club which originated the resolution in cooperation with the Legislative Committee of the division and State Federation.
3. Recommending that the Governor be petitioned to remove the present members of the Sanitary Water Board and appoint in their stead such men who are sympathetic to the enforcement of Pure Streams Legislature.
4. Recommending that the Federation, through its Board of Directors or by special committee, work out a plan, together with its estimated cost, of providing continuous representation at Harrisburg.
5. Vigorously and earnestly protesting at the proposed breach of trust and the ruination of Cook Forest Park or any part thereof by permitting a dam to be erected which would flood that area, and urging the Water Power and Resources Board and the Department of Forests and Waters to decline such an application if and when it is made.
6. Recommending the appointment of Harvey L. Brownback of Norristown to an existing vacancy on the Sanitary Water Board.
7. A letter in honor of Dalton Bell, Williamsport, member of the Board of Directors from the south central Division who met an untimely death in a hunting accident last season, was spread upon the minutes of the Conference.
8. Before adjournment of the Saturday morning session Mr. Kane suggested that in view of the fact that James N. Morton, Chief, Division of Land Management, of the Commission, was in the hospital, and that he was always a friend of everybody coming to the Convention that a message of condolence be sent for his recovery. This was done by the Secretary who received a very appreciative reply from friend Jimmy.
9. The Convention voted against a condemnation resolution from York County protesting against the Split Rock Association after hearing evidence to the effect that that asscoiation had cooperated with the Northeastern Division by opening many acres of lands and many miles of fishing streams which were previously closed.
10. A motion to exclude all fox hunting stories or articles from the GAME NEWS was defeated because it was felt that proponents of every sport had an equal right to exchange ideas and otherwise promote their interests through the magazine.

### Fish Resolutions

1. Recommending that the Fish Commission and the Department of Highways cooperate in erecting dams above road fills wherever possible.
2. Recommending legislation, if necessary, to restore to their former condition streams in which good fishing was destroyed by highway improvements.
3. Recommending that the Commission open Spring Creek Project to Sunday fishing.
4. Requesting that the Commission empower its agents, in cases where roads are impassable into originally designated streams, to place fish in those listed as second or third choices if they are in good condition and accessible for stocking.
5. Requesting the Commission to rigidly enforce the new regulations on the sale of bait taken from public waters.
6. Recommending that special Fish Wardens be employed on a per diem basis for wages and expenses in the same manner in which Deputy Game Protectors are employed.
7. Requesting the Commission to refrain from appointing as special Fish Warden anyone who the Commission feels will attempt to use his commission as a means of obtaining information for the purpose of enforcing the trespass laws, and recommending that any such commissions already issued be revoked if they are being misused.
8. Authorizing the Commission to expend moneys from the Fish Fund to enforce the pure stream laws, and requesting the Legislative Committee of the Federation to introduce appropriate legislation to accomplish this purpose.
9. Recommending enforcement and penalties for violation of the frog laws.
10. Reaffirming a recommendation of the Lehigh County Federation for an increase of 50c in the fishing license, such increase to be earmarked for the acquisition, development and maintenance of public fishing waters.
11. Recommending the Commission restrict the commercial sale of all Pennsylvania fish with the exception of those food fish taken in Lake Erie which come under the present commercial regulation and products of commercial hatcheries.

12. Recommending that Spring Creek be left open, and that fishing be permitted until dark during the period that May-flies are hatching.

13. Requesting the Fish and Game Commissions to urge the Department of Revenue to have fishing and hunting licenses delivered to all agents 10 days before the present license expires.

14. Complimenting the Governor for appointing certain members of the Fish Commission and reaffirming the request that such appointments be confirmed by the Senate.

### Game Resolutions

1. Recommending that the hunting season dates be fixed and announced by the Commission prior to May 1, bag limits and other regulations later, so that workers may arrange for proper vacation dates.

2. Recommending that the season on woodchucks be continued as in 1941.

3. Requesting that Berks, Lebanon, Chester, Lancaster, York and Dauphin Counties be closed to raccoon trapping during 1942.

4. Requesting the Secretary of the Budget and others concerned to grant the 1941 increments for field officers of the Game Commission and urging that the various member organizations file similar requests; also directing the President to appoint a committee consisting of one representative from each Federation Division to check into this matter to ascertain why these increments have not been paid.

5. Directing that the action of the Federation with reference to increments be brought to the attention of the Executive Director of the Commission.

6. Endorsing the purchase of State Game Lands in Dauphin and Lebanon Counties.

7. Suggesting that the Commission change the word "lease" as used in the Cooperative Farm-Game Project agreements to "permit".

8. Requesting the Commission to pay the express charges on six-week old pheasants and quail shipped to sportsmen's organizations.

9. That the Commission refrain from allowing its officers to help representatives of the Audubon Society in making investigations.

10. Requesting that the Predator Control Committee expedite and complete its work.

11. Recommending that the Commission continue its present wild turkey program.

12. Opposing the Special Dog Training Area Law which was added by the 1941 Legislature and requesting its repeal.

13. Recommending that Section 805 of the Game Law be amended to make it mandatory to revoke the license of anyone found hunting while intoxicated or under the influence of drugs, and requesting the Game Commission to supply medical assistance to accompany its field officers for the first day of the hunting season to examine hunters who are believed to be under such influence.

14. Recommending a season on minks and muskrats from November 15 to December 31 inclusive.

15. Requesting that the special fox law in Delaware and Chester Counties be repealed by the Legislature.

16. Recommending a special season for varying hares of two weeks after the close of the deer season.

17. Recommending that an amendment to the law on duck shooting be added to allow hunting from daylight.

18. Recommending an amendment to the law by the special session of the Legislature on shooting hours to correct the condition created by the new Federal War Time so that the Commission will have power to change the shooting hours to meet temporary conditions.

19. Requesting that the Commission expand its blight resistant chestnut seeding production program.

20. Recommending that there be no antlerless deer season in 1942.

21. Recommending that otters be protected during 1942.

22. Recommending that the present law (removal of protection) on skunks be continued for two more years.

23. Recommending that the Game Commission appoint a Game Protector for the vacant district in upper York County.

24. Recommending to the Legislature that the sale of the hides of deer lawfully killed during the regular hunting season be legalized.

25. Requesting that all pending changes in the game and fish laws be brought to the attention of the sportsmen immediately and widely publicized, together with an interpretation giving the effect of the proposed changes.

26. Opposing the leasing of mineral rights on State Game Lands wherever pollution might result therefrom.

27. Opposing the elimination of State Game Refuge No. 505 in Westmoreland County, and objecting to the encroachment of the recreational area in that locality.

28. Recommending that hunting and fishing licenses be delivered to agents at least ten days before the old license year expires.

29. Requesting the Revenue Department to insert with each driver's license a slip urging automobile drivers to avoid killing wildlife, said slip to contain additional information relative to the cost of the wildlife so destroyed annually.

### Other Resolutions

1. Requesting the Department of Forests and Waters to plant more trees along streams.

2. Recommending that a dog law enforcement officer be appointed in each County.

3. Recommending the rigid enforcement of the statutes on pollution control within the State by the Sanitary Water Board.

4. Recommending that pollution on the Frankstown branch of the Juniata and the little Juniata Rivers caused by the West Virginia Pulp and Paper Company be stopped.

5. Recommending that the dog license fee be reduced to 50c for male and $1.00 for female animals.

6. Opposing any combination or consolidation of the Game Commission and the Fish Commission, and requesting the Governor to remove from office any Member of either Commission, or any employee of either Commission, who may promote such consolidation.

7. Resolved that any employee or warden of the Fish or Game Commission who wilfully violates the game or fish laws of this or any other state, or the Federal Government, and is convicted of such violation shall immediately be dismissed from any connection whatsoever with either Commission.

### Convention Speakers

Speakers at the Convention included J. L. Neiger, member of the Fish Commission, who spoke of the work of that Department; Robert Lamberton, member of the Game Commission, who delivered a report prepared by the President, Ross L. Leffler, from that Department's activities; J. R. Hoffert, Secretary, Sanitary Water Board, who spoke on "Functions of the Santiary Water Board"; G. Albert Stewart, Secretary of the Department of Forests and Waters, who talked about the "Future Cutting Program of the Department"; and Charles A. French, Commissioner of Fisheries, who also gave the sportsmen a very interesting talk on the activities of the Fish Commission; Dr. Logan J. Bennett, Leader, Pennsylvania Cooperative Wildlife Research Unit, likewise gave a splendid address on "Woodcock Survey and Experiment Game Management."

### Election of Officers

The conference reaffirmed its confidence in the ability of its President, M. C. Merritts, by reelecting him to that office. Dr. Darlington R. Kulp, who was second Vice-President during 1941, was elevated to the first Vice-Presidency, succeeding Archie Hanes who, although nominated from the floor, gracefully withdrew in favor of Dr. Kulp. Colin Reed, Chairman of the Southwestern Division, long a prominent figure in Pennsylvania sportsmen's affairs, was elected second Vice-President, and upon that efficient and tireless worker Dr. C. A. Mortimer was again bestowed the job of Secretary-Treasurer. Taking it by and large, the entire conference was a success, and M. L. Banker, Chairman of the Planning Committee, is entitled to a vote of appreciation for arranging an interesting program, to say nothing of a special evening of entertainment.

"Let's pick it up dear—I believe the little darling is lost."

# PLANT A GAME FOOD PLOT

*Continued from Page 13*

Evergreens can be planted as wind breaks, hedges, Christmas trees, etc.

ferent sizes of the seed used in the mixture, sowing should be done by hand; a drill will not distribute the various ingredients equally.

Each year the Commission contacts a number of reputable seed companies who bid on the mixture. The low bidder this year was the Seaboard Seed Company, 701 South Front Street, Philadelphia, Pennsylvania. They have contracted to send the seed post paid to any location in Pennsylvania for seven cents per pound. Please send payment to this Company with your order. Interested persons should not delay, but should order their seed now, and resolve to do their part in seeing that wildlife has sufficient food and cover during the coming fall and winter.

Another way in which the cause of wildlife can be helped is by planting tree or shrub seedlings this spring. These will furnish much needed food and cover, and many of them will eventually grow into trees which can be utilized commercially. One of the best and cheapest sources of supply for such seedlings is the State Department of Forests and Waters, Harrisburg. The charge for forest tree seedlings is two dollars per thousand and five dollars per thousand for transplants. The purchaser is also required to pay the express charges on the trees.

In accordance with the law governing the sale of trees from State Forest nurseries, the purchaser agrees to plant the trees for watershed protection or for wood products. Trees so obtained cannot be planted for Christmas Trees, windbreaks, hedges, table trees, potted trees or for shade or ornamental use. Purchasers further agree to protect the planted area as far as possible from fire, grazing, trespass and other damage.

The majority of seedlings raised by this Department are conifers or evergreens. These include white, red, pitch, Scotch and Banks pine, Norway and white spruce, and American larch. A limited number of deciduous trees are raised such as black locust, black walnut, and occasionally some oak, white ash and sugar maple. Inasmuch as some species are limited as to number available, it is wise to enter orders early. Planting instructions are supplied free of charge with the trees. Interested parties, desiring further information, should communicate directly with the Department of Forests and Waters, Harrisburg, Pennsylvania.

Game food producing seedlings can be secured from many commercial nurseries. The price of these varies, but it is somewhat higher than the cost of forest tree seedlings secured from the Department of Forests and Waters. Species desirable for planting for game food purposes are American beech, oak, hazelnut, walnut, hickory, chestnut, hackberry, sassafras, crabapple, apple, persimmon, black gum, cherry, mulberry, pawpaw, mountain ash, Juneberry, dogwood, holly, elder, chokeberry, hawthorn, rose, witch hazel, spicebush, hercules club, Virburnum, Virginia creeper, sumac, bittersweet, honeysuckle, grape, greenbrier, raspberry, blackberry, strawberry, huckleberry, blueberry, pokeberry, teaberry, Japanese barberry, and osage orange. There are, of course, many others, but these are the more important ones.

Many of these plants are growing wild in fields which farmers may wish to cultivate. Interested individuals can generally obtain permission to remove such trees free. These shrubs and trees can be transferred to other locations where they will be of the most benefit to wildlife. They should be planted,

Another strip sown to Pennsylvania Food Plot Mixture.

preferably in clumps, at places where the landowner indicates that they will not interfere with his normal operations. Food and cover plantings should always be made in such manner that both are present in sufficient quantities. After all, game cannot live on an area without adequate food, and refuses to remain long in places where there is insufficient cover.

Many other valuable suggestions for those interested in improving food and cover conditions for wildlife are contained in Bulletin No. 11, "More Food For Upland Game" and Bulletin No. 16, "Wildlife in the Farm Program". Both of these bulletins may be had free of charge by writing to the Division of Game Land Management, Pennsylvania Game Commission, Harrisburg, Pa.

It may be of interest to many readers to know that the Agricultural Adjustment Administration plans to continue payment of benefits to those who take part in their soil conserving and soil building program. The practices for which payment is made includes the planting of both forest and game food producing trees and shrubs. Benefits for the planting of forest trees or seedlings are paid for at the rate of $7.50 per acre. Another practice pays $7.50 per 1,500 protective shrubs, but not more than $7.50 per acre. These

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Photo by W. L. R. Drake

Martin L. Deremer left, and friend with gray foxes trapped in Bedford County. The animals were not caught in sections where foxes are hunted with recognized packs.

One of many feeding shelters erected by students of the Everett Public Schools. Supervising Principal T. G. Will said, "We have had quite a nice response from the students in this project."

Officials of the Merrittstown Chapter of the Fayette County Fish and Game Association feeding game near Renova, Clinton County. Left to right, William E. Moody, Nevin Fry and Dale S. Stahl.

# FOX HUNTING IN CHESTER COUNTY

*Continued from Page 12*

event. A fox that had been found by hounds on some previous day and run to earth had been dug out, and was released for the hunt, being given a certain length of time before hounds were put on the line. While occasional "drop hunts" may still occur, the great majority of foxhunters today prefer to "draw" the country with the pack until a fox is found. This sometimes entails working up to the fox on the cold line travelled by him during the night or early morning hours. Such a find gives lovers of hound work an opportunity to watch the hounds as they puzzle out the intricacies of the line and to listen to the voices of the hounds from the first uncertain whimper to the authoritative notes of certainty swelling into a triumphant crashing chorus as a hotter scent tells the pack that a fox is indeed afoot, and not so far ahead at that.

A fox when found may stay above ground for several hours on those frequent days when scenting conditions are unfavorable and he well knows that he has no great cause of worry from the pack. On other days, however, when the scenting conditions are such that hounds can really run, he does not dally, but takes "leg-bail for security", and usually makes for some friendly earth after a run of some twenty to forty minutes.

One not well acquainted with foxhunting may wonder why so many hounds are used in the pursuit of a single fox, and perhaps feel inclined to criticise the sport on the ground that this is unfair to the quarry, and savors of mobbing. Nothing could be further from the truth. There are several reasons why a fairly large pack of hounds is desirable. First, in "drawing" open fields and especially in "drawing" large woodlands, it is obvious that a pack of hounds covering a fairly wide front is more likely to find a fox than would be the case if only a few hounds were used. Secondly, a pack of hounds running well together gives the "field" a definite objective to which to ride, and third and perhaps most important the volume of "music" given forth by a good pack is to many the chief attraction of the sport and in addition is of the greatest value to the "field" in keeping contact with the pack, particularly in wooded or rolling country where hounds frequently are out of sight.

This cry of the pack, as a matter of fact, is an advantage to the fox. All huntsmen know that an experienced fox governs his pace according to the nearness and quality of the cry of the pack; he does not seek to outdistance it entirely, but realizes that his safety is greater if he knows just where hounds are, and this he determines by ear.

I believe most huntsmen will agree that, if they were to go out for the sole purpose of killing a fox, they would take only a very few hounds, and would prefer to be accompanied only by one or two active whippers-in as a large "field" of horsemen, more often than not, works to the advantage of the fox rather than the reverse. Only too often the "field" in their eagerness will by overriding cause the pack to overrun the line, or some horsemen may cross the line of the fox, thus destroying the scent or turn a fox back into cover, or halloo the pack on to the line of a fresh fox.

After all, a single hound can kill a fox if he can catch him. This, however, would involve something of a fight, whereas the death of a fox that may be caught by a pack is instantaneous.

A pack of hounds is really a primitive "weapon" against which to pit the speed and cunning of a fox, and may rather be compared to hunting game with bow and arrow as compared with a rifle or a shotgun.

Those of us who are gunners may fancy that we are hunting alone, and that the game, be it deer, pheasant or rabbit, has only to contend with us; but we are not alone, for behind us though unseen stand all of the skilled machinists, chemists and designers who have created the modern firearms which we carry and the shell that we slip into its breech.

Foxhunting is a sport that may be enjoyed alike by young and old, rich and poor. An old man on a young horse may well see as much of the day's sport as his younger companions, while a farmer lad mounted on an elderly mule has, by reason of the knowledge of the country possessed jointly by rider and mount, been known to stay closer to hounds in a twisting run than have many of his fellow sportsmen mounted on top-notch thoroughbred hunters.

The sport, too, has a large number of devotees who may never attempt to follow the hounds either afoot or on horseback, but who get no small measure of enjoyment in hearing the cry of hounds as the pack passes near their homes or field of work. They enjoy seeing the pack, watching the horsemen and horsewomen crossing the country, and perhaps get a gimpse of the fox himself as he slips from one cover to another.

Through foxhunting many of its exponents acquire no little skill in the art of orienting themselves to a country, which, combined with the degree of horsemanship that this sport imparts and the knowledge of where it is possible for a horse and rider to go, constitutes an excellent preparation for service in the cavalry. Indeed, at the present time, there are a considerable number of young men in that branch of the service at Indiantown Gap whose experience in the hunting field has been of no small value to them in their present profession. When they get leave of absence during the foxhunting season their first thought is a day with the hounds, and a goodly number of service men are frequently to be seen among the "field" with many packs in Chester County and elsewhere.

This brings to mind the experience of an Englishman who until recently acted as huntsman of a pack of foxhounds in Chester County. Before coming to America, he had served several seasons as whipper-in to a well known pack in England. During the first World War he served as sergeant in a regiment of horse artillery which formed part of the forces of General Allenby in the campaign against the Turks in Palestine. Most of the men in his battalion had been recruited in the cities, and it was found difficult to select men able to act as mounted scouts, able to go forward, locate a battery position, return and guide the battery back to it. The

(Continued on Page 24)

# Future Problems Confronting the Sportsmen

*Continued from Page 19*

Photo by Robert Parlaman

**Splendid 8-point killed near Dawson, Fayette County, by the above smiling 17 year old nimrod on December 8, 1941.**

ishing succulent forage supply would sustain the remaining animals in good thrifty condition, also leave desirable cover on the forest floor for small game. Another important objective was to relieve widespread complaints of damage to farms and orchards.

The thinning operations which the Commission started on a statewide scale fourteen years ago have not only attained the Commission's original objectives, but the remaining animals have been driven back into the forests where they belong. Complaints of farm damage and demands for deer-proof fence have been reduced to negligible items. And the dangerous and unsportsmanlike practice of cruising along the highways (sometimes with loaded guns contrary to law) to bag deer has also been greatly curtailed, because the "cruisers" were seldom rewarded this past season.

Last year deer were again hunted mostly in the good old-fashioned way. During the period when deer could be bagged almost as easily as rabbits, a condition which was decidedly unhealthy and could not possibly last indefinitely, the "art of deer hunting" was on the verge of disappearing.

It is true that in some sections too many deer were killed in previous seasons, but in many localities the absence of deer was due largely to the fact that they drifted out of poor feeding grounds in search of more favorable range. Many of Pennsylvania's deer actually drifted clear out of the State, and the neighboring sportsmen have enjoyed much better hunting—on Pennsylvania's deer. In other sections, especially where lumbering operations had been underway during the past decade, deer were reported in sufficient numbers to afford satisfactory sport for those who were willing to earn their trophies.

The Commission feels that the present deer situation is wholesome. It believes that the herd will again rapidly increase, and that future control steps will from time to time be necessary. In the meantime, however, Pennsylvania's remaining deer herd is in much better shape; conditions for ruffed grouse, wild turkeys, snowshoe rabbits and cottontails are more favorable; and farmers generally are not being annoyed by damage.

The Game Commission feels that the objectives which its predecessors in office started out to achieve back in 1927 have been attained, and that under all the conditions which prevailed the kill during the 1941 season was in our opinion quite satisfactory—and all that any fair-minded sportsman should expect.

In connection with the establishment of seasons and various other major problems that arise, the Game Commission, in keeping with its sworn responsibilities, makes its own decisions, but before doing so it obtains information and advice from every possible source. For example, when the seasons for 1940 were being discussed, the Commission first obtained detailed information from all of its field officers concerning conditions in each district, which was supplied without bias of any kind; this information in turn was assembled and laid in full before the Commission and its staff, then discussed at length. A summation of the tentative conclusions was submitted confidentially to the Directors of the Federaton for study, who later sat in with us for a conference. Federation representatives of three of the four divisions which have the lion's share of the deer hunting in the Commonwealth **asked for exactly the kind of a deer season the Commission later decided to declare**, so that you will observe we do consult with the organized sportsmen, and that we fairly consider their views always.

The Commission decides its course of action in all matters as its joint judgment dictates, and the recent deer seasons were not a mistake, as the future will clearly prove.

Again I want to repeat what I said to the Directors of this Federation at the Conference on October 12. We of the Commisson appreciate fair, constructive criticism, but it would be much more sportsmanlike, and certainly would help the Commission and you sportsmen mightily, if those who have axes to grind would go elsewhere to do it.

Gentlemen of the Convention, these are some of the problems which confront all of us. I would be remiss in my duty if I did not frankly bring them to your attention. Thank you.

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## HARRISBURG BOY SCOUT RECEIVES COVETED AWARD

(Continued from Page 15)

He also acquired and maintained a three-acre wildlife sanctuary on a local farm, sponsored a city "Make Public Wildlife Conscious Program", including a display of wildlife posters in 200 Harrisburg stores, and supervised the erection of hand-built feeding stations (50) and birdhouses (50) in Bellevue, Wildwood and Reservoir Parks.

He submitted his application for the Hornaday Award two years ago. Hearing nothing about it for 14 months he nonetheless kept working undaunted or undiscouraged. Later he submitted added "evidence", which culminated in his success.

Others to whom the Honorary Medal was previously awarded are: Henry J. Hall, Carbondale, Pa.; A. E. Roberts, Cincinnati, Ohio; Harold K. Whitford, New York City; and Hollis Two, Rockton, Illinois.

## FOX HUNTING IN CHESTER COUNTY

(Continued from Page 23)

former whipper-in, however, was able to carry out such missions with little difficulty, and earned his chevrons through repeated action of this kind.

One day a visitor to the Kennels in Chester County where the sergeant was serving as Huntsman asked him to describe his most stirring experience in the Palestine campaign. He replied without hesitation: "Why one day I was doing a bit of scouting among the sand dunes of the desert between our lines and the Turkish position when, all of a sudden, the most beautiful red fox you ever saw jumped up right in front of me!"

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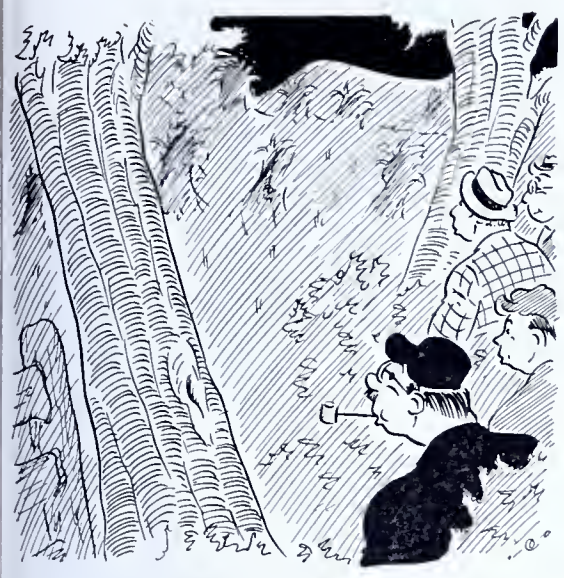
"Some of the junior sportsmen of Waterford, ranging in age from 11 to 16, asked me to help them form a Wildlife Club. They hold meetings every two weeks at my home and are very interested in doing some good for the cause of conservation. To date we have 12 members. The boys are now trapping the surplus rabbits in the Borough of Waterford. President is Russel Skiff, Ivan Owens is Treasurer, Secretary, Sheridan Owens."—Game Protector Fuller H. Coffin, Erie County.

# AUTUMN MAGIC

(Continued from Page 10)

★



Then silence, "What happened," someone asked "did they fall in a well?"

I heard Pete say something over in the brush about what a **swell?** place this was to be in when you wanted to make time. The Reverend right in front of me lost his hat on a thorn bush, and I had gotten my lead chain tangled on the same shrub. Then somebody yells "Whoa! hold up! they're coming back." We all stood still and listened. Sure enough, they were coming back down off the slope into the bottom again, still driving hard. Then silence. "What happened", someone asked "did they fall in a well?"

"Wait a minute" I told them, "Just wait a minute." You could have heard a toothpick drop in that silence. The breeze had fallen, and the sky was clouded over, with just a faint trace of that big harvest moon showing through now and then. There it is, listen! Wah Wah! Wah!—Wah! Wah! Wah! the tree bark from the old master, then "Wooooooh! Black Ace, talking up like a veteran, at two years of age.

We headed in the direction of that symphony, and Doc says "That 'coon must have flew over here. He sure didn't go through this like us." Boy was it thick.

Well, we must have been twenty minutes getting through that jungle to where those hounds were treeing. There they were, tuning up a big willow at the edge of the thicket.

We could see his eyes shining as soon as our lights hit the tree, and as we drew nearer he began to get uneasy. I told Pete, who was carrying the old single barrel to let him have one before he jumped, because the dogs might miss him and we had had about all of that kind of going we wanted for one night. So he let go with the number twelve, and down he came, like a ton of bricks, but still with plenty of fight inside his furry hide. Those hounds jumped in, and I thought sure Ace would lose one of those ears I had threatened to cut off, but Old Bill soon got his throat hold, and the old 'coon stretched out, giving up the ghost to that pair of eager pursuers.

We decided we had had a good chase, and about enough for one night so would head back towards the cars, which were now some distance. Well, as I said once before, the jungles of Africa. "Where are we?" someone

Boy, was it thick!

So he let go with a load of .12.

wants to know. "Oh, we're not lost", someone else comes back." "I know where we are, we're in Pennsylvania." Some wanted to go this way, and some that. I had tried to keep a little direction in mind, but I wasn't too sure of myself either, but said we would cross those fields and we should hit the bottom road. Well I think that field was the biggest field in the U. S. A., but we did hit the road, and what do you know, a whole lot nearer the cars than we had expected. Someone back along the line said "This 'coon weighs a ton", but he really wasn't awfully big. Funny how heavy they get when you carry one a ways. He sure knew how to go in high gear though, and never stopped for stop signs or traffic lights.

So ended one of our 'coon hunts this Fall without any too serious damages to our character, and I think everyone enjoyed trailing those hounds even though the going was tough. At any rate I've had ministers 'coon hunting with me since that night.

What gets under the skin of a true American hunter, makes his pulse beat quicker than the distant baying of hounds on a still autumn night? I call it Autumn Magic. If you like this little yarn, will try reminising again sometime.

Looking south toward Bald Eagle Range and Muncy from fire tower near Game Refuge No. 8.

## STATUS OF THE LAND PURCHASE PROGRAM

(Continued from Page 11)

A very pertinent factor which should never be overlooked is that the purchase of land represents an investment—an interest bearing, revenue producing investment, not only for hunting purposes, now and for all time to come, but also for the production of a timber crop in the future and to protect watersheds. By far the largest proportion of State Game Land acreage is forest land of various age classes, and if protected from devastating forest fires timber of merchantable size will soon be produced on most of the acreage. It is safe to predict that all of the funds expendea to purchase game lands will be returned to the Game Fund in a comparatively few decades by the sales of timber and wood products.

Photo by H. B. Kirk
Morel

# MORAL OF THE MOREL

## By A. B. CHAMPLAIN*

*Editor's Note: This is the first of a series of articles on Nature-lore which A. B. Champlain, State Entomologist, has generously offered to contribute monthly. Most of his material for the future will deal with insect-life, however.*

★

IF you must eat fungi, be sure you are right and then look again—unless it is a morel. In this latter case we have a dainty morsel, seasonably in good taste. There is little chance of confusing it with any of the non-edible kinds which will have their revenge if you eat them. You will not need a book of rules in one hand and a magnifying glass in the other when looking for morels. Once you see one you will always remember its homely countenance. Dame Nature at times seems to have her funny moods. That is why a morel looks like a sponge sitting up on a spool. If you don't believe it, cast your eye on this portrait of one in its prime.

The hollow stem or stalk supports a head whose whole surface is pitted and honeycombed, while communicating lines and ridges form an interlacing network that adds to its curious surface aspect. This striking appearance is distinctive of the morel. The general color of the head or cap is at first grayish tan to buff yellowish or ochre. More elderly plants assume darker shades as they begin to dry. The stem is whitish tinged with yellows.

There are several species or more of morels. But their resemblance to each other is so striking that the uninitiated would consider them as twins. Only those persons who specialize with magnifying glass, books and keys can distinguish them. It doesn't matter, anyway. The consumer is not concerned about which morel he is about to eat, but whether it is prepared to his taste.

So place yourself out in the damp woods some day in May or June. Amuse yourself a stray afternoon which might otherwise be wholly lost, and gather a meal of morels, in addition to some good exercise and recreation. This palatable and nutritious food is too often left to pass unnoticed where it grew. It is a natural food product that combines a vegetable and meat diet, for our morel although composed largely of water, like all plants contains considerable nitrogenous or protein material which is the stuff animal life is made of.

The common morel has been tagged scientifically as *Morchella esculenta*. Quite a mouthful. Its last name implies it. Esculenta means fit for human food. So go to it and try it out. You will be convinced after you gather well grown, sound, fresh specimens, and cook them after the many recipes in the volumes of cook books now extant. Turn to the chapter on the preparation of mushrooms and go ahead. You will be putting one over on the butcher and the gardener and thereafter, in May and June, you will most likely haunt the woods and valleys where they grow.

*State Entomologist.

# COMMON FAWN LILY

## « « By Robert B. Troxel

*Editor's Note: This is the first of a series of monthly article on wild flowers by Robert B. Troxel, State Botanist, who has so genrously agreed to prepare them for the interest of our readers.*

**Let us not destroy in a few minutes what it took four years to build. The beauty of one flower in the woods is worth many a wilted bouquet.**

THE more plants and animals a hunter or fisherman can recognize by their first name when he is in the field, the more his time is occupied and the less chance he has to think of the cares of the day. All make for a perfect day in the field and a satisfied sportsman. If we have eyes that see, there is always an open season for our sense of sight.

Lets leave the paved trail early in April and direct our steps across an open field: to our right is a Meadowlark with his cheery and appropriate song, "S-P-R-I-N-G I-S H-E-R-E." There on the edge of the clearing is a small tree practically covered with white flowers; this is the Shad Bush or Juneberry. But we continue across the field down the hollow, in the wood, which is watered by a spring fed little brook and there on the bank we find a number of single oblong-lance-shaped leaves, mottled with green purple and white.

To our left is a yellow flower resembling a miniature lilly. Upon closer examination we notice that the flower arises from the center of two of these spreckled leaves. A common name frequently given to this flower is the Dog Tooth Violet, but neither tooth nor violet seem sufficient for this harbinger of spring. Another common name is the Trout Lily; this one is more appropriate for the leaf resembles the spreckled trout and usually grows on the banks where these finny beauties are found.

Fawn lily is probably the most satisfactory, for the fawn is also mottled and because the two leaves stand up with the alert startled look of a fawn's ears. As we examine the area where this plant is growing we find that there are many single leaves with no flowers. This is true because when the seed develops into the new plant only one leaf appears and after the second year the bulb will divide and form another bulb, both of which still bear a single leaf. It is only after the third or fourth year when two leaves develop and from the center of which appears a welcome spring neighbor.

Photo by Pa. Dept. Agriculture
Fawn Lily

# THE CANINE CORNER

By EVAN C. STINEMAN

Editor's Note: Beginning with this issue we expect to run, through the courtesy of Evan C. Stineman, Deputy Game Protector of South Fork, a series of short articles on the care, handling, etc., of sporting dogs. Mr. Stinman, feeling for some time the GAME NEWS should have a veterinarian column devoted to such matters, discussed the matter with Game Protector Elmer Thompson, and they both agreed that Dr. H. B. Prothero, veterinary surgeon, Johnstown, could be persuaded to do the column. Dr. Prothero agreed provided Mr. Stineman would prepare the matter for publication. Incidentally, the Doctor administers a small animal hospital of his own, and in addition has been chief veterinary for all the animals at the Rolling Rock Sportsmen's Club for over 15 years, having followed in the footsteps of his father who held the same position previously.

Sportsmen who are interested in knowing the whys and wherefores about dogs are encouraged to submit their queries either to Mr. Stineman at South Fork or to the editor.

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"How do Doc: Meet my friend Joe Sportsman, Joe Sportsman meet Doc. Prothero. Working pretty late this evening! What's the case? Well Ev, if some of you boys would take a bit of time conditioning your brood bitches before and after breeding we Vets wouldn't have to work at night so often. See that little hound bitch there in the second cage. She had five puppies the hard way. We were able to save two of them. The boy who owns her thought all he had to do was breed her and sit around for the prescribed sixty-three days and wait for her to deliver him a fine bunch of puppies.

"You know boys there has been volumes written on the care of brood bitches but seems as though the average sportsman can't get around to putting into practice a few essentials to insure normal healthy whelping. At the time of breeding, the bitch should be in condition—that means not too fat. There's something to remember. Often when the female is out of condition she will miss even though successfully mated. Two weeks later, she should be checked for worms. Either take the dog to your Vet. for examination or take a sample of the stool for an analysis. He can then prescribe the proper medicant to eradicate the particular kind of worms she may have.

"Now for the most important part of the program, and that is exercise. Most of you boys breed your bitches so that the whelping doesn't interfere with hunting seasons, field trials, etc. So what happens is that you lay her on the shelf so to speak just at the time she should be hardened up for the ordeal of whelping. Your veterinarian can worm the bitch for you and prescribe a feeding program but he can't very well exercise her for you. Well boys, if you'll excuse me I'll have to be getting back to work.

"So long Doc. Joe Sportsman and I will drop around again next month. That exercise business is something I'm not going to forget the next time I breed a female.—Bye."

Cocker Spaniel owned by V. A. Hicks, Sayre, Pa.

# PRACTICAL DOG FEEDING

By C. J. KOEHN

**(Abstracted by Logan J. Bennett)**

Recently there was published a very valuable and interesting bulletin on practical dog feeding. This report is "Practical Dog Feeding," by C. J. Koehn, Associate Animal Nutritionist, Alabama Polytechnic Institute, Auburn, Alabama. Over 500 dogs were used in the feeding experiments.

Four home-mixed rations are recommended. Auburn Ration 1 is especially recommended for brood bitches. Auburn Ration 2 is recommended for growing pups and maintaining dogs under average conditions, Auburn Ration 3 is especially recommended for hard working dogs. Auburn Ration 4 gave very good results.

H. T. Wieand, left, Emlenton, his springer and friend Walt. Mr. Wieand is one of the new GAME NEWS contributors. Look for his "Nimrod's Record" in a forthcoming issue.

**Composition of Auburn Ration I**

| | |
|---|---|
| Yellow corn meal | 35 lbs. |
| Wheat bran | 10 lbs. |
| Wheat shorts | 20 lbs. |
| Meat scrap | 10 lbs. |
| Fish meal | 10 lbs. |
| Skimmilk powder or dried buttermilk | 10 lbs. |
| Alfalfa leaf meal | 2 lbs. |
| Bone meal | 2 lbs. |
| Salt | 1 lb. |

**Composition of Auburn Ration II**

| | |
|---|---|
| Yellow corn meal | 58 lbs. |
| Wheat shorts | 20 lbs. |
| Meat scrap | 20 lbs. |
| Salt | 1 lb. |
| Sardine Oil | 1 lb. |

**Composition of Auburn Ration III**

| | |
|---|---|
| Yellow corn meal | 46.0 lbs. |
| Wheat shorts | 20.0 lbs. |
| Peanut meal | 29.0 lbs. |
| Bone meal | 2.5 lbs. |
| Salt | 1.0 lb. |
| Limestone | 0.5 lb. |
| Sardine Oil | 1.0 lb. |

**Composition of Auburn Ration IV**

| | |
|---|---|
| Yellow corn meal | 55 lbs. |
| Wheat shorts | 20 lbs. |
| Meat scrap | 10 lbs. |
| Peanut meal | 12 lbs. |
| Salt | 1 lb. |
| Limestone | 1 lb. |
| Sardine oil | 1 lb. |

The cost of the rations per 100 pounds at the time of publishing the bulletin and on southern markets was as follows: Auburn Ration 1, $2.52; Auburn Ration 2, $2.72; Auburn Ration 3, $2.20; and Auburn Ration 4, $2.45.

It is usually necessary to purchase the ingredients for the rations in 100-pound lots. However, many feed companies will make up the rations in 100-pound mixes and charge only a small fee for the mixing. In the North the rations containing peanut meal would probably be difficult to have made up because dealers do not regularly carry peanut meal in stock. The ingredients of the ration should be placed in a pile on a clean floor or container and thoroughly mixed. It is recommended that 50 to 100 pounds be mixed at one time. The ration should be stored in closed containers in a cool, dry place.

It is recommended that all rations be cooked before feeding. The ration should be mixed with water to form a thick paste and baked in loaf tins in an oven for an hour at 400°F. or for an hour and a half at 350°F. The ration may also be cooked in a kettle over a flame. The mixture should be stirred until the boiling point is reached, after which heating should be continued for one minute, with constant stirring. If no means for cooking are available the food can be moistened and fed raw. Most dogs will do as well on the raw as on the cooked food.

The bulletin can be obtained free or for a few cents. If you are concerned with dog feeding expenses, it will pay you to write for it.

Above honored guests of the Third Annual Banquet of the Keystone Sportsmen's Association, Harrisburg, James C. Wise, Secretary; Homer Kreider, Attorney-at-Law, Toastmaster; Carl Shoemaker, Director, National Wildlife Federation, guest speaker; Lee Hayes, Retiring Secretary and Alexander David, Chairman of the Banquet Committee. Below, the certificate of award presented to Mr. Hayes in recognition of his faithful service to the organization.

Certificate of Award

THIS CERTIFIES THAT

LEE M. HAYES

In recognition of the able and efficient services rendered this Association in the office of its President during the period Sept. 30, 1940 to Feb. 18, 1942, of his authoritive knowledge of Pennsylvania wildlife, his ability and unselfish leadership in advancing the best interests and welfare of Sportsmen in Pennsylvania we thus award him and certify him to be of high repute an accomplished border-line conservationist — sportsman.

PRESENTED BY

The Keystone Sportsmens' Association Incorporated

HARRISBURG, PENNSYLVANIA

Done by an Act of this Corporation in the City of Harrisburg Dauphin County, Pennsylvania, this 18th day of February A. D. 1942

Charles E. Noble
Chairman Board of Governors

Secretary

## KEYSTONE SPORTSMEN MEET

Good fellowship and good conservation constituted the keynote of the Third Annual Banquet of the Keystone Sportsmen's Association at Harrisburg, on February 18. Approximately 200 Keystoners, their wives, families and sweethearts turned out for the gala occasion—the highlight of which marked the forced retirement of its genial president, Lee M. Hayes, to take up more arduous duties for Uncle Sam. Coincidentally, Major J. N. Homan, Public Relations, Induction Center, New Cumberland, was a guest of honor, and Mr. Hayes had an excellent opportunity to discuss his "new Work" with the prospective chief. In recognition of his faithful service to the organization over a period of years, President Hayes was tendered a certificate of appreciation. He served the organization two years as secretary and two years as president.

The principal address of the evening was given by Carl Shoemaker, Director, National Wildlife Federation, Washington, D. C. A pioneer conservationist and one thoroughly familiar with the game and fish problems of practically every State in the Union he was able to discuss these and many Federal wildlife problems. He paid a splendid tribute to Pennsylvania, especially the State's enviable reputation in having eliminated politics in the administration of game and fish.

The banquet also served as a reunion for the association's former president, Allen Barrett, with the old gang. Mr. Barrett, now engaged in public relations work with the Fish Commission, gave a splendid talk on the relationship of fathers and sons, emphasizing quite naturally the sport of fishing as a media of binding the two more closely together. Other guests introduced were Alexander David, Chairman of the Banquet Committee, Thomas D. Caldwell, Esq., the Association's attorney; Leo A. Luttringer, Jr., Game Commission, and Rev. E. V. Sunanday, who delivered the invocation.

The job of introducing the guest speakers and seeing to it that the meeting in general went over with a bang fell to the lot of Homer L. Kreider who, with his genial and ready wit, performed an admiral job as toastmaster.

Gold medals were awarded to those members who caught the largest fish of various species as follows: Richard E. Bock, Camp Hill, brook trout, 16 inches; H. C. Trimble, Camp Hill, rainbow trout, 23½ inches; James T. Karnitz, Meyerstown, brown trout, 25½ inches; E. Loyd King, Harrisburg, smallmouth bass, 21¾ inches; E. B. Benner, New Cumberland, wall-eyed pike, 28¾ inches; John Marasco, Dauphin, pickerel, 24 inches; Richard H. Steigleman, Camp Hill, 8¾ inches; and Walter Heck, Harrisburg, large mouth bass, 18 inches.

An impressive part of the occasion was the presentation of colors by a guard of soldiers and members of the American Legion. Dur-

# WITH THE CLUBS

## SAYRE GROUP ACTIVE

**(Say're with Food)**

The boys from Sayre not only rolled up one of the largest turnouts in the state, at their annual banquet—811 strong—but outdid the epicurean abilities of that little town to the tune of the following:

Twenty-seven gallons tomatoe juice; 245 pounds roast beef (no bones); 360 pounds potatoes; 10 gallons gravy; 100 quarts peas and carrots; 24 quarts sweet pickles; 38 quarts coffee; 48 quarts coffee cream; 35 pounds butter; 250 pounds spiced apples; 85 pounds baked lima beans; 30 pounds bacon; 75 pounds cottage cheese, 1500 rolls; 2500 slices brown bread; 1200 cakes; 30 gallons ice cream and 2 crates celery.

The club has consistently had a roll call of from 750 to 800 every year—a record in any club's history, and they're not on hand just for the eats or the entertainment either. Thye're an up and going conservation-minded association with a lot of good irons in the fire and a lot of public spirit behind them.

Members of the Sayre Sportsmen's Association at Annual Banquet.

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The Mohnton Fish and Game Protective Association organized in February 1934, now boasts of a membership of 375 a good assembly for a relatively small community. Last year it was unusually active, having established two game refuges of 27 and 60 acres respectively. By cooperating with landowners and distributing safety zone posters the members succeeded in having 6000 acres of land previously posted thrown open to public hunting. A large supply of game was released including 546 rabbits, 26 quail, and 148 ringneck pheasants. The members of the Game Committee obtained receipts from landowners and tenants whereon the game was released agreeing that those properties would remain open to public shooting. During the past winter the association has been carrying on an energetic feeding campaign.

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Incomplete figures in 1941 Maine hunting and fishing license sales show that these sales reached an all-time high last year, according to Commissioner George C. Stobir. Nonresidents alone paid in **more than $211,000,** while **residents added approximately $185,000.** The grand total is about 15% ahead of that for 1940. Of the estimated $37,730 increase, all but $5,629 was contributed by out-of-state sportsmen.

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The Littlestown Fish and Game Association recently purchased a $100.00 Defense Bond and is planning to purchase some article for the field kits which are to be sent to the boys at the front.

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ing the entire banquet the members were entertained by a prominent orchestra, and at the conclusion numerous door prizes, contributed by local merchants, were awarded. The curtain finally rang down on a bang-up floor show.

On February 20, the Unami Fish and Game Protective Association of Emmaus celebrated its 29th birthday with a banquet at the Broad Street Hotel. The principal speaker of the evening was Attorney Forrest Gotthardt of Allentown. Other speakers were Robert Stoneback and R. S. Butz, local businessmen and Zeke Witwer, of the Witwer-Jones Sporting Goods store of Allentown. Mr. Earl Cope, former president of the club also remarked on the club's activities during the past year and outlined the events planned for the coming year. Toastmaster for the occasion was Theodore R. Gardner, well known Lehigh County attorney.

The climax of the event was the distribution of several dozen items of sporting goods, as door prizes for the club's membership. They included some donated by local sporting goods dealers and others purchased by the club.

On Sunday, February 23, the association started Civilian Rifle Instruction classes. These take place every Sunday in the Gymnasium of the Emmaus High School through the cooperation of the local School Board. Mornings are devoted to those already familiar with firearms so that they can better their marksmanship. The afternoon classes are restricted to those unfamiliar with firearms. Licensed instructors are in attendance and are giving their time without charge. Classes are free to the general pubilc. They will continue for a period of ten weeks.

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Thousands of deer in agricultural territory where there were none ten years ago are proving a major problem for the Minnesota Conservation Department, according to W. L. Strunk, Minnesota Commissioner. Crop damage and highway accidents, some of the latter fatal, have been caused by the deer that have migrated southward out of the timber regions. **"A plant out of place is a weed"; an animal out of place can become a nuisance.**

## PENNSYLVANIA FISH AND GAME BANQUET DRAWS 1000

The Sixtieth Annual Dinner of the Pennsylvania State Fish and Game Protective Association held at the Bellevue-Stratford Hotel, Philadelphia, on February 18 marked one of the greatest celebrations of this, one of the oldest and largest single sportsmen's organizations in Pennsylvania. Over 1,000 members and guests were in attendance and enjoyed not only an excellent banquet but an inspiring program. The celebration was opened with the "Call to Colors" by a bugler from the American Legion, followed by the pledge of Allegiance to the Flag, the singing of America, and the invocation by George Emerson Barnes, D.D., the Chaplain of the Association.

Next was the presentation of the award for the Dr. C. A. E. Codman prize for the best story of the year, which was won by Robert T. B. Winskill. His name certainly is indicative of a winner.

An enlightening and inspiring address was made by Lieutenant Sir Richard Codrington. R.N.V.R. of Rhodesia, South Africa, the principal speaker of the evening, followed by an excellent program of motion pictures by Joseph B. McCall, Jr., and last but by no means least the drawing for prizes.

Officers of the association include Edgar W. Nicholson, President; Joseph H. Mellon, Greville Hasam and Dr. C. A. E. Codman, Vice-Presidents; John L. Michel, Secretary; E. K. Crissman, Treasurer; William D. Burk, Warden. and George Emerson Barns, D.D., Chaplain. The Executive Committee consists of Mark P. Mills, Nathan P. Pechin, George W Schneck, George P. Orr, George A. Parker. Albert Brooks, Bernard E. Berlinger, Martin F. Strohm and William E. Gamble and the Trustees are William D. Burk, Edward Woolman and Dr. William H. Moore.

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There are more than 450 kinds of woodpeckers in the world.

Left to right, Game Protector Ambrose Gerhart, Souderton; William Stoneback of Lansdale, President of the Montgomery County Federation of Sportsmen's Clubs; George Schell, Green Lane; Henry Gerhart, Souderton and John Ruth, Kulpsville; as they helped the Montgomery County Federation of Sportsmen's Clubs to release ringneck pheasants provided by the Pennsylvania Game Commission.

## FIELD NOTES

(Continued from Page 17)

motion pictures of planting, erecting birdhouses, etc. We all shot one shot from the shotgun at a milk bottle cap and prizes were given to the winners. Had a number of contests, played ball, etc. The members saved their dues from the school term to pay for this outing.

This same group goes on an over-night trout fishing trip in May. The teacher-sponsor and I supervise this trip also. The winners of the contest in securing subscriptions for the Game News and Angler take this outing, there usually being about ten in the group. The funds used are derived from the ten cents they retain from each subscription. We also have a casting contest and prizes for the biggest fish. We usually leave on Friday and come back on Sunday.

In May, again at the Recreation Area of the California Teachers College, the college students have a "Farm Day". They ask me to attend and supervise part of the day's activities. The entire student body turns out and works on the area at numerous projects. One year I supervised the tree planting group, last year I supervised a group of about ten in building rabbit and feeding shelters on the area and putting up birdhouses, although it was a little late for them. All the bird boxes were placed in a contest by the Charleroi Junior Sportsmen.—Robert D. Parlaman, Game Protector, District D 11, West Newton.

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In the January issue we carried the announcement of mixed rifles at the request of John Fotta, Sharpsburg. The other day he wrote us as follows:

"If it hadn't been for Game News I would not have gotten it back. Thanks, also to Deputy Edward R. Rogers for getting in touch with Mr. M. Klingensmith of Conneaut Lake Park the man who so kindly gave me a ride when I was lost in the mountains, and I made such a mixup between our rifles."

## HIGHWAY TOLL OF WILDLIFE HIGH

Additional proof of the tremendous toll of wildlife on the highways was recently contributed by S. W. Jackson, District Engineer of Franklin, who submitted a report of highway caretakers in the six counties which comprise District No. 1 during the year of 1941. The caretakers cover from 25 to 35 miles of territory and since they do not reach all points every day they miss counting many of the creatures which are removed from the highway by other animals and birds, such as crows, etc., and those which are struck and thrown to the side or crawl away in the grass or bushes to die: Rabbits, 8728; groundhogs, 464; squirrels, 174; skunks, 1748; raccoon, 27; deer, 31; opossum, 298; weasel, 10; muskrat, 48; fox, 3; porcupine, 16; mink, 1; grouse, 35; quail, 29; woodcock, 8; ringneck pheasant, 203; miscellaneous (hawk, owl, snake, etc.), 153. Domestic birds and animals included: chickens, 348; ducks, 19; geese, 0; turkeys, 6; cats, 1178; dogs, 544; horses, 5; sheep, 3; hogs, 3; cows, 5.

The totals of game birds and animals recorded according to months are as follows: January, 446; February, 616; March, 1048; April, 1325; May, 923; June, 1314; July, 990; August, 1235; September, 214; October, 1329; November, 901; December, 573.

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## PLANT A GAME FOOD PLOT

(Continued from Page 22)

shrubs must be of a variety helpful to wildlife, recommended by the local game protector, and approved by the County Agricultural Conservation Committee. Further information on these, as well as other practices for which the Agricultural Adjustment Administration pay benefits, may be secured from your County Agricultural Conservation Office.

Resolve to do your part this year to better food and cover conditions, so that wildlife may have a better chance to thrive and produce abundantly, by entering wholeheartedly into one or more of the programs described above.

## MONTGOMERY SPORTSMEN ACTIVE

"Our sportsmen have always played an important role in the defense of our nation!"

This sentence was the keynote of the Quarterly Meeting of the Montgomery County Federation of Sportsmen's Clubs, held at City Hall in Norristown—the first meeting of the Federation since the entrance of the United States into the world-wide conflict. And "Civilian Defense" was the theme of brief talks by the two speakers of the occasion Guier S. Wright, Montgomery County Defense Council Chairman, and Captain Gilpin Lovering, also of the Montgomery County Defense Council. These men pointed out that if the sportsmen of our country—those who have always been counted upon to protect our homes because they **have guns and know how to handle them**—will "keep their eyes and guns in order", they can be great preventive factors against threats of sabotage enemy parachutists, undesirable refugees who might leave congested areas and prey upon country residents during possible air raids etc.

"Encourage the residents of your community to join a rod and gun club," urged President William Stoneback of Lansdale, at the conclusion of the guests' speeches.

The **membership** of the seventeen member clubs of the Montgomery County Federation of Sportsmen's Clubs has increased more than 60% during the past year.

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## THE MAIL BAG

"I wish to submit a report on the planting program I sponsored in 1941. I delivered the material personally last spring and gave instructions to those in charge of planting However, this required too much time so in the fall I requested the club or association to appoint a committee in charge of planting These committees came to my place and I showed them mature plants and trees and in this way they got a much better idea of the food value and how to plant in combination

"The associations taking part and the amount each received are as follows: Mill Creek Sportsmen Association 1,550; Northern Lancaster County Sportsmen's Association 500; West Earl Sportsman Association 50, Columbia Sportsmen Association 500; Cacalico Sportsmen Association 100; Northeastern Lancaster County Rod and Gun 1,400; Mt. Joy Sportsmen Association 1,000; Conowago Rod and Gun Club 500; Individuals 650; Cloister Flow Club 1,000, (This is a Woman's Club, Mrs. Roscoe Schweitzer, Ephrata, R. D. 1, in charge of planting."—R. F. Mohler, Box 566, Lancaster.

---

America's harvest of seafood varies from the jumbo halibut, taken by hook in the Northern Pacific, to the periwinkle, a little shellfish picked by hand off the rocks of the New Englard coast.

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The Idaho Fish and Game Department plans to restore ringneck pheasants in portions of the State where suitable habitat exists but where satisfactory breeding populations are lacking.

# GRADUATION DAY

*Continued from Page 3*

and the members of the staff of the Training School, for the kind attention and consideration they have given us, but even more we wish to show our appreciation to those dear to us, who have sacrificed so much that we could attend this fine school. Now that our graduation is at hand we stand ready and willing to carry our assignments wherever they may be, and to take our places in the ranks of game conservation in order to make Pennsylvania a better place in which to live."

An excellent teacher, a fine sportsman, one known to almost every other sportsman in the Commonwealth, was next introduced by Director Gordon, who in presenting Dr. R. L. Watts, former head of the school of Agriculture at Penn State said "We have one man on the platform today who has taken a very genuine interest in the conservation program of this Commonwealth and in the whole country for a long time. He has been especially interested in the work of the Game and the Fish Commissions. I think his interest in fishing has grown in later years, because he was always a great hunter. He ties his own flies. Let's just say he is interested in the great outdoors. Even though retired he is just beginning to live."

In acknowledging the introduction, the Dean said that it was the first time he had attended the school and that he was very happy to have the opportunity.

"I am reminded of a story about a boy who picked up a toad and kept it in a cage. The thing that interested him the most about the toad was the variety of food he ate. He gave him almost everything. One day the boy found a big fuzzy worm, a wooly worm, and placed it before the toad. He got it down all right, then the boy went away and worried about it, but when he went back he found the toad on its back and its feet sticking up in the air—tickled to death. That is about the way I feel here today—tickled to death, yet I wouldn't have you believe I ate worms."

"Out there with the people you are going to work with, if they are going to help you, you must be true and nobody must suspect that you are not. Two years ago Mrs. Watts sent me down the cellar to bring up some fruit and I brought up a basket of apples. She pared on and it was chuck full of yellow streaks. Every apple she pared or quartered had a yellow streak in it. That is the way with some people. You have young men who are well dressed, their hair combed and shoes shined, but they have a yellow streak. I want to say to you, display a character true and clean all the time. If you don't people will discover you. It must take great courage to be a game protector to stand up all the time for what you think is right.

Dean Watts made some excellent comparisons on conservation, beginning back in Biblical times, and reminded those present of the manner in which mother nature so abundantly has blessed our Commonwealth. He stressed the meaning of character and urger the class to exhibit a character that rings true. The Dean also emphasized tact. As Mr. Gordon so ably put it, "That was a whole truckfull of fatherly advice, from a young man—just 40."

Probably no other individual in the Commonwealth is so well known to its citizens as the next speaker, Col. Lynn G. Adams, head of the State Motor Police. The Colonel, long experienced in handling men—an individual gifted with ready wit, amused the entire assembly by picking up the threads from Dean Watts' frog story as follows:

"In spite of what the dean said about persistence, I want to add a little something to that. I know about that frog. That frog arriving in Chicago on a lump of butter was delivered with the buttermilk to a restaurant. This restaurant was run by a man who took great pride in being able to deliver anything that anybody asked for, and that morning it happened that one of his customers came in and asked for frog legs, otherwise he would have been out of luck.

"I hope you will forgive me if I mention a personal experience. I told it before but it illustrates exactly what I mean. We are hearing a great deal about men giving their lives for their country. Before we are through, thousands and thousands of our young men will have done that. When I was a boy about six or seven years old my father took me down to the City of New York. He took me out to the Statue of Liberty, away up in the head where we could look out on the harbor, and he told me a story of the Statue of

(Turn Page)

Photo by C. Gordon Krieble

**Applicants for entry into the Commission's Training School being assigned to places of examination**

Photo by C. Gordon Krieble

**Officers of the Training School and Mrs. I. A. McHugh of the Harrisburg office, pose for an informal snapshot following the graduation exercises. Mrs. McHugh is one of the oldest employes in the Commission having served since October 15, 1918. Her husband, Joseph J., lost his life in the service of the Department while apprehending game law violators. Left to right, William C. Ryder, Assistant Superintendent; Robert Lichtenberger, Resident Instructor and Wilbur M. Cramer, Superintendent.**

Liberty. When we returned we passed through the center of the city, passed a public park, and life-size statue of a man. This statue is rather remarkable. The figure seems to be looking into eternity. The shirt is open at the throat, and around the neck is a hangman's noose, and as young as I was I knew to die by the hangman's noose was the most ignominious death a man could die, so I asked my father about it. He pointed to a line on the pedestal, which read:

> "My only regret is that I have but one life to give to my country."

It was a statue of Nathan Hale, and from that time on, for many years, I believed the best thing a person could do was to die for his country. Undoubtedly it is the greatest sacrifice a person can make, but whether or not it is the best thing I leave you to judge, but as for me I believe the best thing a man or woman can do is to live for his country every minute and every second. If he does that, no matter how poor he may be, at the time of his death he will not have lived in vain, and I leave that with you in your service to your Commonwealth and conservation, that you always keep in mind that you are doing the best thing you possibly can do with your life."

G. Albert Stewart, Secretary, Department of Forests and Waters was supposed to join in the ceremony but could not attend. In a letter of regret he stated: "Please congratulate the graduating class for me, and assure all of my great esteem for the processes under which the Game Commission has raised its personnel to a level unequaled in any other State or Nation."

Former students, other officers, Staff Members, Field Division Supervisors, former Commissioners and members of the Federation of Sportsmen's Clubs were next introduced. M. C. Merritts, president of the Federation of Sportsmen's Clubs, in congratulating the class said, "Speaking for the sportsmen I think it would be no more than fair to say to you, as a class, this occasion today is made possible because of the sportsmen of Pennsylvania. It is your dollar and my dollar that makes the occasion that we are celebrating possible. You will find today in Pennsylvania the last and only 'hunter's paradise', and may I ask of you to keep it as you found it, if you can't make it better than when we give it to you."

The oaths of office were next on the program, preparatory to which Vice-President Lamberton introduced the Honorable William M. Parker, Justice, Pennsylvania Supreme Court, who subsequently administered them. During the ceremony the judge talked to the class at some length, gave the members some excellent advice.

In Conclusion the officers were given their assignments by R. A. McCachran, acting Assistant Executive Director of the Commission, followed by a Pledge of Allegience to the Flag in which the entire audience joined. Interspersed throughout the entire program music was furnished by the Brockway High School Band.

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The prong-horned antelope is not a true antelope. Unlike the true antelope, the pronghorn has branched horns and sheds the horn sheath.

The last meal together. Photo by C. Gordon Krieble

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**PENNSYLVANIA GAME COMMISSION**
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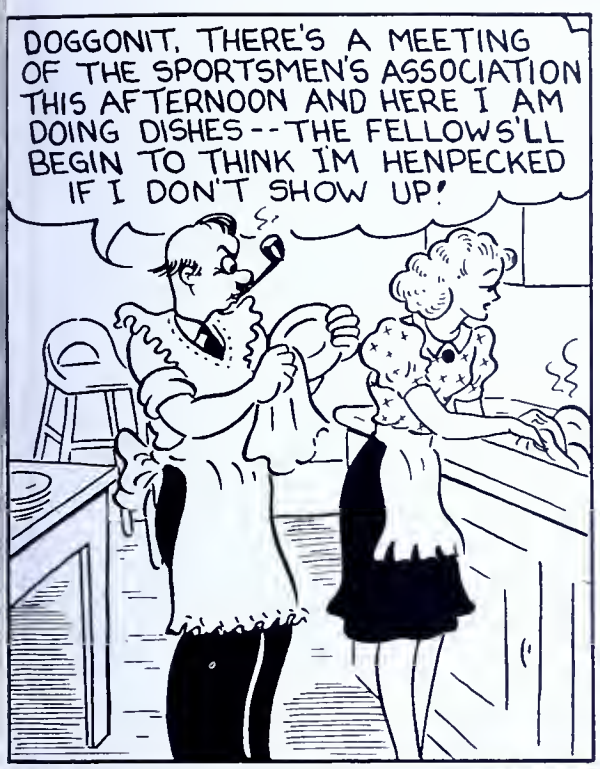
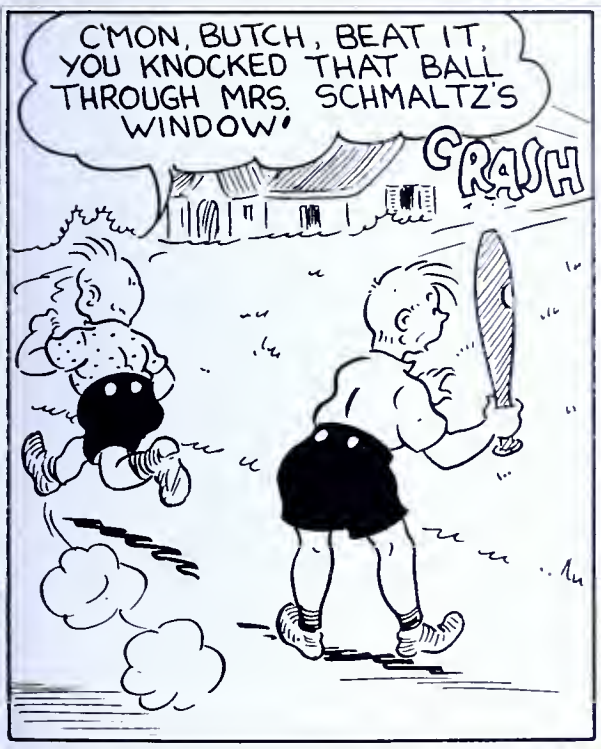
THE FAMILY OF A. HUNTER, ESQUIRE — Episode No. 14





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# PENNSYLVANIA GAME NEWS

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VOL. XIII, No. 2

# EDITORIAL

MAY, 1942

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*Cover by William Montagma*

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# HUNTERS, STRONG FOUNDATION FOR DEFENSE

WITH some six million Americans swarming into hardware and sporting goods stores for hunting licenses and shooting gear, this country has a much better foundation for a strong defense organization than had Britain at the start of the present war.

Thanks to the American yen for hunting and target shooting, far more of our draftees, too, can be quickly taught how to handle the automatic rifle, the machine gun, anti-tank guns and other artillery.

Due to long years of restrictive legislation, hunting has become a "lost art" among the vast majority of Britons, and comparatively few individuals even own firearms. When organization of the defense force was undertaken, sixty per cent of the enrollees were found to have never had a gun in their hands. Much time was lost in teaching them not to shoot themselves or each other, before they could be put on the range for their first actual target instruction. An average of one firearm to twenty civilians was found in some parts of Scotland and North England; this discovery resulted in a hurried call for all spare sporting guns and any other old firearms that Americans could spare for British home defense.

Although some eight million hunting licenses are actually issued each year in the United States, two and one-half million of these are combined hunting and fishing licenses and may not necessarily indicate use of a gun. But five and one-half million are straight hunting licenses issued to people either familiar with firearms or learning their use. Of these five and a half million, probably almost 80 per cent or some four and a quarter million licenses, are issued for shotgun shooting.

Over ten million rifles have been sold in the United States to private owners in the past decade; if only 25 per cent of these are used regularly, we have at least two and a half to three million Americans who can handle a rifle; a fair estimate would indicate that another seven million can handle a shotgun.

There are slightly over 3,000 senior rifle clubs belonging to the National Rifle Association, with a total membership of approximately 160,000 members. There are another 1,500 junior clubs which will qualify over 100,000 shooters under age 19 during 1941. It is estimated that a million and a half riflemen have taken club courses of instruction in the past 15 years. These more expert riflemen in the nationally organized target shooting clubs are available as instructors and coaches for home defense units.

U. S. Artillery officers find that among recruits without previous shooting experience, only a few "take to" the machine gun and learn it readily. But 85 out of 100 with previous experience in using firearms can learn the machine gun quickly and handle it skillfully. The marine corps gets most of its heavy gun pointers from the ranks of its expert riflemen. The same general trend exists in the navy, even to pointers for the 16-inch guns. The man who has become familiar with the handling, sighting and holding a rifle, naturally grasps the instruction on the heavier gun more readily and "holds" on the target more instinctively.

Also, it is important to note that modern warfare is tending more and more to emphasize the importance of the individual. The success of the German army has resulted largely from the development of individual initiative and the training of the individual soldier to go out on his own and do his job. Hunting develops this same sort of initiative—the ability to "go it alone," to deal with emergencies, and to stand hardships.—Family Economics Bureau, Northwestern Life Insurance Company.

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**One of George Shiras', III, nationally famous photographer, best night flashes of deer.**

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# IN THE BEGINNING

**In which the Editor interviews John M. Phillips on early day conservation problems.**

★

Photo H. T. Wieand

**Results of a morning squirrel hunt: four cornfed bushytails each. Tim, a prospective hunter, looks on.**

TODAY Pennsylvania is one of the greatest game states in the Union. But what was it in the beginning? What all went into building up its present-day reputation? Early records tell us some of the trials and tribulations, the headaches, the obstacles that were surmounted, but I always had a hankering to hear the story first-hand. So the other day I went to Pittsburgh and interviewed John M. Phillips, that enthusiastic and far-sighted individual, now past eighty and still fit, who gave so much of his time, money and effort in order to start the wheel of conservation rolling back in the early days. It wasn't the first time I visited him; sat and chewed the fat for hour after hour up in the "crow's nest" as he calls his room, where tributes of some of the country's most famous people adorn his walls, his bookshelves and tables—portraits, testimonials, silver cups, guns, books, etc.

He was in the mood for reminiscing, so I told him what I wanted to know. He said "All right you ask the questions and I'll answer them." It was warm, so we shed our coats, made ourselves comfortable, and then I began. First I wanted to know a little something of his early boyhood.

He was born in '61, he said. Named for a sportsman-uncle who gave him a gun and a dog. "I recollect father placing the gun on a table where I could just reach it. Then I'd crack caps and put out lighted candles. As a small boy I had an Indian Chief as a tutor. He taught me Indian-lore and woodcraft. I remember killing wild pigeons by placing the stock of the shotgun on the ground and shooting into overhead flocks, as I was too small to put the gun to my shoulder. I killed my first deer when I was nine years old. Father was a railroad builder in the wilds of Pennsylvania and West Virginia, consequently I had an opportunity to hunt and fish a great deal; and ever since my vacations have been spent in hunting and exploring from Alaska to South America.

When I asked him if game was plentiful when he was a youngster he replied "It was fairly plentiful when I was a boy, but by the late '80s game was practically shot out and sold out. We had but few game laws and they were supposed to be enforced by township constables. They were politicians with friends. In many cases the lives of birds and animals were traded for votes."

I asked him what made it disappear so quickly. He answered "Our quail, grouse, wild turkeys, rabbits, deer, bears and squirrels were shot and trapped and sold in the markets. Live quail for stocking purposes, or for fresh quail on toast, could be purchased for $2.50 per dozen in Pittsburgh and I purchased many for stocking. A country boy or hunter could trap and shoot game out in the country, then carry it around in his pocket all day and hold it for the huckster. The huckster would haul it to town and sell it to the marketmen. By that time most of it would be spoiled and would sell to people at prices lower than beef, mutton or pork. Then, too, in my early days the men who killed the most wildlife were considered the greatest sportsmen, so naturally their competition helped greatly to deplete the supply. Song and insectivorous birds were killed and their plumage sold to milliners. Waterfowl were shot without any regard for the season or future supply."

When he had exhausted his supply of information on early hunting conditions I wasn't entirely satisfied and queried him about big game, particularly deer. I struck oil again, for his memory served him admirably as his following remarks signify: "I think it was in 1880 that three of us, including Senator Lawrence Phipps, now of Colorado, went hunting about twelve miles from Pittsburgh. We had an old horse and wagon and started at three o'clock in the morning.

(Continued on Page 16)

**Pennsylvania sportsmen enjoy some of the finest black bear hunting in the country.**

# CONSERVATION AND THE WAR

Photo U. S. Fish and Wildlife Service

**Hands across the Border—Canada and Uncle Sam fight the enemy together.**

*Editor's Note: Following are the highlights of a talk recently given to a Pennsylvania Sportsmen's Association. Don't fail to carefully analyze them. They represent FACTS not WORDS.*

IT was the State of Pennsylvania that first undertook wildlife management on a scale which, over the years, has kept its fields and forests and streams well supplied with those species of wildlife desirable for pursuit by the sportsman. Pennsylvania pointed the way and is the shining example of what can be done if there is intelligent direction and a willing spirit of cooperation. From John Phillips to Seth Gordon, Pennsylvania has had able men at the helm guiding its conservation program through the rough seas of politics and public indifference. That both of these handicaps to an otherwise well greased machine have been overcome speaks well of the intelligence and understanding not only of its sportsmen but of its public officials.

What happened in Pennsylvania has been happening in many other states in more recent years. Today the wildlife restoration program is well on its way in the great majority of our commonwealths, due to the experience, management and programs provided in Pennsylvania.

Throughout the nation there is a sincere and genuine desire on the part of wildlife officials, conservation agencies, sportsmen, and the public generally to conserve and wisely manage the wildlife resources. As a body, I do not know of any finer group of men anywhere in any field of public endeavor than the public officials engaged in wildlife management.

The conservation of wildlife is roughly divided into two phases. We have passed through in practically every state, in Pennsylvania a long time ago, the first phase, which may be designated as the "protection and propagation" phase. In the beginning game laws were recommended and enacted for the protection of the various wildlife species. Either complete or partially closed seasons were provided and a studied effort made to restore, through propagation, those species which, from one cause or another, had been depleted in numbers. This first phase came to an end substantially in 1937 or 1938 in practically every state in the Union.

Overlapping somewhat in time is the second phase, which may be called "the wise management and planned utilization of our wildlife". It would not be exactly fair to say that the second phase began at the time that the Pittman-Robertson Act went into effect in 1937, for this Act would never have been passed had not the conservation mind of the country been well settled in its conviction that management and utilization of wildlife were the outstanding and conspicuous needs of the times.

The Pittman-Robertson Act, however, has focused the attention of all states to these needs and has brought about a planned utilization and a wise management of these tremendously valuable and vital wildlife resources.

We are now engaged in a titantic struggle to preserve the democratic form of government and the rights and freedoms that such a government insures to the people who live under it. At the moment the turn of events is discouraging and disquieting, and before there is a brighter day we are in for more reverses; yet, the indomitable spirit of this nation and of its people, who have been hardened and tempered in the fires of battle to achieve and preserve our right to life, liberty and the pursuit of happiness, will in the end gain supremacy and victory over the forces of imperialism and dictatorship.

We have once before gone through a struggle, slight in comparison to the present one, but which, nevertheless, covered one continent and at one time threatened others. During World No. 1 the conservation of our wildlife resources was going through the first stage of protection and propagation. We did not know as much about the problems of wildlife then as we do now. Much experience was gained and out of that experience there has come some definite conclusions.

We hear on all sides that, on account of the draft and the war effort in general, the conservation departments of our various states will suffer a loss in the number of licenses issued to sportsmen, and a consequent decline in revenues for the departments. What was the experience of our game departments during the last World War? A recent survey, conducted by the U. S. Fish and Wildlife Service shows that in twenty-two states there was a gradual, yet certain, increase in the number of licenses issued beginning in 1916 through 1918, and that beginning in 1919 the upward curve became even greater. The revenue also showed a greater increase because in a number of the states license fees were increased because of the anticipated loss of revenue through the feared decline in the number of licenses issued.

*Director National Wildlife Federation.

## By Carl D. Shoemaker*

About seven or eight states during the last World War had no game departments at all. In the other twenty states the records are so fragmentary that no accurate conclusions can be reached. However, among those states which showed a steady increase in the last World War in both licenses issued and revenues received were Pennsylvania, Michigan, Indiana, Oregon, Washington, Ohio and Minnesota.

Another conclusion reached through this survey which is at variance with our popular belief is that most species of wildlife, other than fur-bearers and food fish, stood up well during the last World War, except in the immediate vicinity around cantonments, where upland game populations declined slightly.

It must be remembered that during the last World War the number of automoblies was not nearly as great, nor their use as general, as at the present time; but there is a definite check on this today due to the rationing not only of tires but automobiles as well. Sportsmen, along with every other class of people, are going to conserve their tires during the present shortage.

Generally speaking there is no need to become jittery over the effects that this war may have on wildlife unless it is prolonged far beyond the time that the experts figure will be necessary to end it. During the last World War those states which did get the jitters, and which through the hysteria of the moment opened up or provided longer seasons, are the ones whose wildlife populations went sour. In other words there is not much need for worry about wildlife populations so long as all of us keep our feet on the ground, our head in the air and our mind free from the jitters.

Food supplies during World War No. 1 were important and essential as they are now. It will be recalled that much of our western prairie and range lands were turned under by the plow in an intensive effort to produce wheat, corn and other vital crops. The range was over-extended and over-grazed. Following the World War, and due in a measure to intensive cultivation and the growing of livestock, we were confronted with a dust bowl condition which wrecked havoc not only upon wildlife but upon our human population and brought desolation and waste to millions and millions of acres of land in our midwestern and western states. Government experts have concluded that the climatic conditions, of which the dust bowl was one manifestation, depleted our game stock more than any other factor during the '20s and '30s.

We have now the Taylor Grazing Act, which controls the public domain and the numbers of stock that can be grazed upon it. We have the Soil Conservation Service, which has done excellent work, and is continuing to do so in showing the American farmer the proper methods of conserving, restoring and revitalizing his soil. Secretary of Agriculture Wickard, in a recent statement said there would be no need for a recurrence of the conditions which led to the devastation of our agricultural soils and our grazing lands.

He further stated that there is no need for intensive use of poor land as was done during the last war. However, there is one hollow note in the situation and that is the suggestion of the livestock interests to increase greatly the amount of livestock to be grazed on our western lands. No final determination has been given to this suggestion.

Let me mention briefly some of the en-

(Continued on Page 26)

**Ski Troops need warm fur clothing.** Photo U. S. Army Signal Corps

OLD GRAT sat on an ancient, battered porch rocker on the front porch of his mountain home. In saying that he sat, I probably mislead my reader, for you might think he was an ordinary person, sitting upright in the fashion of our species, resting after his daily chores. Old Grat didn't really sit; he sprawled. Furthermore, he was half asleep—his hunting cap was down over his eyes, his hands were folded lazily on his paunch, and his legs were crossed in a listless X, the center of the X being somewhere in the vicinity of his shin-bones. And last of all, Old Grat was not resting after his daily chores; for, dear friend, resting was his daily chore.

His dog, Mange, basked in the warm Spring sunshine, the back of his head rested against the toe of Old Grat's high-top shoe. Mange was a long, big-boned, lop-eared black-and-white mongrel, with the same hopeless, lazy expression on his face as characterized his master. The dog's eyes were tight-closed, and he snored peacefully.

Neither Old Grat nor Mange batted an eye when two strangers, garbed in department store outdoors garb that shrieked to the world, "We are from the big, big city", pulled up in a brand new car which was heaped to the roof with clothing and paraphernalia.

"Hey Lightning!" called one of the strangers—a big, black-whiskered man with a flashing row of gold teeth.

At this declaration, Mange partly opened an eye. Then he rose slowly, stretched long and blissfully, rolled his tongue across his chops, and offered one weak and lifeless bark to arouse his dozing master.

"Hey, Rip Van Winkle!" called the Second Stranger.

Old Grat opened his eyes. He rubbed his nose leisurely. In one swift, encompassing glance he took in all: car, men, equipment. Moreover, from this quick glance he did some deduction work, while he yawned and stretched. These fellows were city men—office men probably, from the looks of their sallow faces. They had come into the mountains to escape the nerve-racking business world, and their wives, doubtlessly; this he knew principally because of the beards. The first thought of a city slicker leaving for the mountains was that he'd enjoy a lapse of shaving duty. They also intended to do some hunting, for rifle barrels jutted here and there from the untidy pile of equipment.

"Do you board hunters?" asked the First Stranger.

Old Grat slowly drew a pack of chewing tobacco from his back pocket of his ground-colored corduroy trousers and then stuffed one side of his cheek before answering. "Yep—in hunting season."

The First Stranger nudged his companion. "In hunting season, he says."

"Yeah." The Second Stranger laughed. "Any time is hunting-season back in this section where nobody can get to."

Old Grat just chewed silently. He shuffled lazily to the edge of the porch, Mange trailing.

"Well, do you board vacationers?" the First Stranger said.

Old Grat sighed. He stuck his head around the corner of the house. "Manda!" he called. In an instant a fat, bustling woman dashed into view from the back porch. She was soap-suds up to her elbows. Her face was etched deeply with years, weather and her indolent, shiftless husband. "Boarders," was Old Grat's terse comment. Then he returned to his rocker. Mange sat by his heels.

And that was why people did so much talking about Old Grat—his wife did all of the work, and he lived on the fruits of her labor. Old Grat would never do a tap of work; he'd hunt, and fish, and set out steel traps, but he never would work. And he could dance like thunder at a good old-fashioned ho-down. But he refused absolutely to work.

Nor had he ever worked. All of his days had been spent in this little home in the mountains, enjoying a perennial vacation. People predicted certain starvation for himself and family every day, yet

*Mr. Anderson is now serving in the armed forces, and we wish him Godspeed.

# OLD GRAT

« « « *By Jack Anderson**

day after day his wife and kiddies and himself waxed fatter and fatter, and their cheeks became more and more rosy. His wife sold lumber off the property; she collected wintergreen and huckleberries in season; Old Grat guided occasional hunting parties.

Yet there were things that kept folks wondering. For instance, when there was a hard winter and the deer were on the verge of starvation, they could be found invariably on the mountain near Old Grat's home, sumptuously fed and happy. All sorts of game was abundant in Old Grat's territory. And in twenty-five years, no game protector had been called in a case of poaching in Old Grat's stamping-grounds.

And more. There were fire-lines cut each and every year across the forest, and new Forest Fire signs were kept posted, clean and unmutilated, near favorite camping grounds.

But people all agreed that Old Grat was the most worthless cuss on the planet of earth, and that Mange was the most good-for-nothing dog. Which was the lazier was a hopeless problem. It was true that Old Grat often had Manda to lace his high-top boots, and that he often preferred lounging in the shade to eating his noon-day meal. But likewise was it true that Mange was too lazy to bury a bone.

The two City Strangers spent the day about the house. It soon became very clear that they were not lovers of Nature or true disciples of the great outdoor world. They did a lot of drinking, a lot of boasting, a lot of criticizing.

That evening they sat and drank by lantern light, and talked to Old Grat.

"You know this neck of the woods like a book, don't you?"

Old Grat smoked his pipe, nodded lazily.

"Ain't a lot of game here, is there?"

"Plenty, despite everbody out in the brush with a gun."

It was seldom that Old Grat could be seen off his chair, or that Mange could look so lively.

Old Grat and Mange.

"Humph! We didn't see none. Are the deer plentiful?"

"Yup—still too many for the feed."

"You sound like a Game Commission poster. That's another way of saying there ain't many."

"There's plenty. Only they don't make a habit of sitting out on the highways waiting to be looked at."

"Then how do you see them, sleeping all day in that blasted rocking-chair?"

Old Grat smoked silently.

"I suppose you can hunt anywhere you want to up here."

"Not anywhere."

"Humph! Who'd see you, no matter where you hunt? I'd hunt wherever I felt like it."

"Yeah. Who says you can't hunt on his land?" The Second Stranger chimed in.

"Lots of people. And over yonder a club has posted land, too."

"Oh, a big shot club, eh?"

"Yeah, we just love to shoot the game for those guys."

"That outfit ain't no big-shot club. Twenty-five bucks a year, and anybody can join."

"Twenty-five bucks! That ain't for us poor men."

"How did you afford all the likker?" Old Grat countered. "Anybody who can afford a hunting trip can afford that."

"It's still somebody's fortune."

"Nope, it ain't. It's a public club—the coming thing in the overpopulated east. It's going to help the program of wildlife conservation. I seen 'em plant some game already, and we ain't had wild turkey shootin' here for many years. Besides, they're roped off some refuges, and without refuges, hunting would soon be done up here."

"Let the Game Commission do it's own stocking. I bought a hunting license a couple of years ago. What became of those two bucks?"

"Yeah. I ain't buying no more license. No game anyway. And I ain't paying out no dough to no club, either."

"Me neither. Ain't no game, anyway."

Old Grat just puffed on his pipe—but now he puffed harder, and the room was soon filled with smoke.

Soon he rose and stretched slowly to his full length, the smoking pipe in his hand. As if by time signal, Mange also raised from his sleep by the fire, firmly pressing his forelegs into the ragged carpet,

(Continued on Page 28)

# The 1940-41 Game Trapping and Hunting Program

By Wilbur M. Cramer*

★

Ralph A. Prutzman, Deputy Game Protector, Lehighton, traps all the rabbits for the Commission in that borough. He trapped a hundred so far this year. But sometimes he catches other things. This big house cat crawled in the trap to catch the rabbit already inside and both were killed. He's caught 9 cats so far none of which are alive; also 9 rats, 3 skunks, 7 opossums, 1 squirrel and a dog, all except the rats being released.

DURING the past several years the Commission through its field personnel, sportsmen, farmers and youth groups has been carrying on a very successful wild game trapping program which has helped materially to relieve overcrowding on certain areas, alleviate damage on others, remove game from sections where no hunting is permitted and replenish depleted areas where public shooting is permitted.

It has been entered into wholeheartedly by all concerned, and has proved a most efficient, economical and practical program from the very beginning. Thanks to those who have taken part in it.

### Trapping Methods

Many methods of trapping have been employed, almost all of them successfully. For instance, during the period under discussion eight colony pheasant traps in operation netted 158 cocks and 617 hens—a total of 775 birds.

These traps have proved very successful especially where there are large concentrations of pheasants because it is possible to trap many of them in short periods of time with fewer injuries to the birds. Quite a few birds are injured in the smaller traps although they are prevalent where the birds are not heavily concentrated.

As an example of its practicability 96 pheasants were caught in one colony trap in a heavily concentrated area during one 24-hour period. Not all bags were that large, but they usually netted a goodly number on almost every haul.

The colony type pheasant trap is 15′ long 6′ wide and 36″ high, and can be made for about $10.00, wire and all included. Also, it can be changed from one location to another without much difficulty and loss of time, and with proper care can be used indefinitely,

### Game Trapping Permits

In order to wisely administer, properly control, and assure the best results during the program four types of formal game trapping permits were issued by the Field Division Supervisors, namely,

Class "A"—Issued to sportsmen, Deputy Game Protectors and other persons to trap game on a voluntary basis only.

Class "B"—Issued to sportsmen, Deputy Game Protectors, Boy Scout Troops or other youth groups to trap rabbits at the rate of thirty-five cents per head if Game Commission traps were used, and ringnecks at the rate of fifty cents per head.

Class "C"—Issued in emergency situations to a very few Deputy Game Protectors who were paid at a par diem rate for their trapping activities.

Several special raccoon permits were issued to Deputy Game Protectors or sportsmen in a number of the northern counties to trap and remove raccoons from State game lands, game refuges, auxiliary refuges and propagating areas where these animals were too plentiful and thus were considered injurious to the increase of the ruffed grouse. These trappers were paid at the rate of $2.50 each for the raccoons secured.

A total of 186 Class "A", 374 Class "B", 4 Class "C" and 12 special raccoon permits were issued, or a grand total of 576 in 59 counties of the Commonwealth.

### Record of Game Trapped

It would take too much space to include a detailed county by county report of the amount of game and predators trapped during the campaign. Therefore, only the totals in each case are listed as follows:

| | |
|---|---|
| Rabbits | 32,799 |
| Ringnecks | 2,912 |
| Gray Squirrels | 600 |
| Raccoons | 109 |
| Muskrats | 152 |
| Woodchucks | 35 |
| Weasels | 4 |
| Beavers | 3 |
| Opossums | 14 |
| Skunks | 10 |
| Red Squirrels | 14 |
| Wild Duck | 1 |
| Foxes | 4 |

The mortality was unusually low, including only 26 rabbits and 16 pheasants which were killed or died before release.

It is interesting to note the scale of rabbit trapping operations which reached their peak in January with 13,164 and February 13,193. A complete tabulation of this scale follows:

| June 1, 1940 to Nov. 30, 1940 | Dec. 1940 | Jan. 1941 |
|---|---|---|
| 482 | 1,366 | 13,164 |

The number of rabbits trapped in the various game divisions included:

| Division | Number |
|---|---|
| "A" | 9,458 |
| "B" | 2,713 |
| "C" | 1,882 |
| "D" | 1,118 |
| "E" | 3,049 |
| "F" | 7,936 |
| "G" | 6,643 |
| Total | 32,799 |

The number trapped in the seven Divisions by Class "B" agents at 35c each was as follows:

| Division | No. Rabbits | Amount |
|---|---|---|
| "A" | 5,086 | $1,770.65 |
| "B" | 1,430 | 500.50 |
| "C" | 1,517 | 533.95 |
| "D" | 742 | 258.30 |
| "E" | 1,916 | 670.60 |
| "F" | 6,715 | 2,336.95 |
| "G" | 4,510 | 1,512.70 |
| Totals | 21,916 | $7,583.65 |

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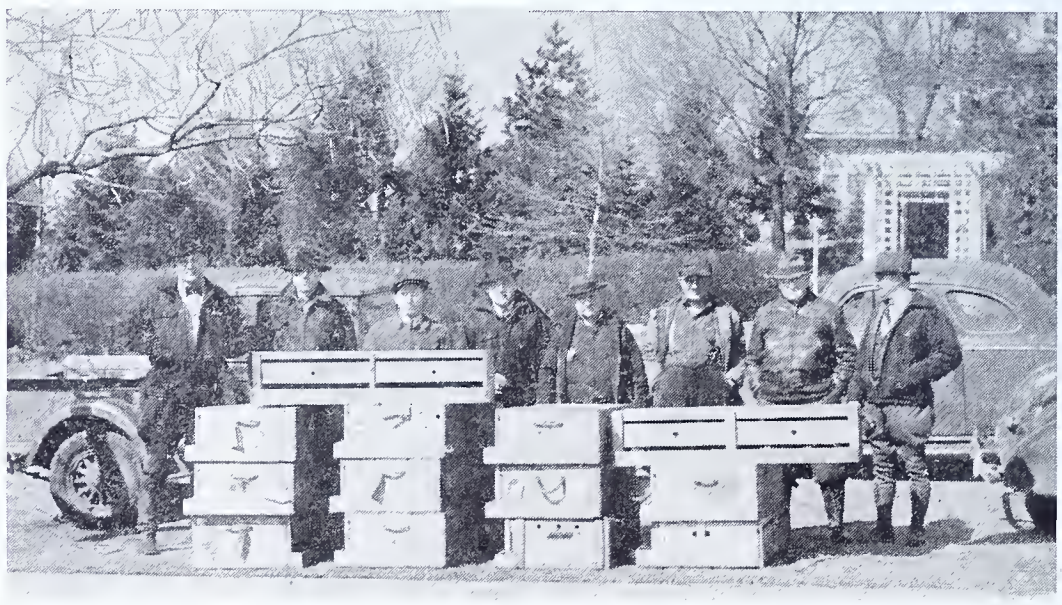

The trapping program supplements the regular purchase and restocking program of the Commission.

*Superintendent of the Commission's Training School who administered the Program.

# Want Pheasants? . . . Keep Them Fed!

## By Helen V. Merritts

★

DURING the past twenty-five years the ringneck pheasant *(Phasianus colchicus torquatus)* has become one of Pennsylvania's most valuable game birds. Because of its popularity, the management of this bird has become an important undertaking to the sportsmen and the Game Commission. A knowledge of the habits of a bird or mammal is essential before a sound management plan can be prepared. Of the many essentials of pheasants, the food requirements are very important. Food habit studies of the ringneck have been carried on in Pennsylvania at various times in recent years to determine the food habits of the bird. The present study, 1940 and 1941, was conducted from an analysis of the crops sent in by hunters and game officials from over the state to the Pennsylvania Cooperative Wildlife Research Unit at The Pennsylvania State College. The majority of the crops were obtained during the hunting season, November 1 to 29. This report is a study of the fall foods of pheasants. This study was carried on under the supervision of Dr. Logan J. Bennett, Biologist, United States Fish and Wildlife Service, and Dr. P. F. English, Associate Professor of Wildlife Management, Department of Zoology and Entomology, The Pennsylvania State College.

There were 49 crops sent in from various counties in the state in 1940 and 123, in 1941 (table 1). The analysis of the contents of these crops presents the reader with information on what food types are necessary for good pheasant range in the fall. Also, the results of such an analysis provide indicators for improving food conditions for the bird over the State.

### Method of Analysis

Crops were opened and the contents separated according to species and material. Items from the crops were compared with those on file in a collection for identification. Each item was then measured, dry weight, in cubic centimeters, and the proportions recorded on a card for filing.

### Result of Crop Analysis for 1940 and 1941

In 1940 there were 40 identified species of seeds found in 49 crops, as well as five species of animal matter, largely insects, some gravel and dirt, and 11 unidentified species of seeds. Of the seeds, corn led the list with 45.37 percent of the total volume, occurring 23 times. Grasshoppers constituted a large part of the animal food, occurring nine times. Table 2 shows the number of times each item occurred and the percent of the total volume.

*Paper No. 33 from the Pennsylvania Cooperative Wildlife Research Unit. Fish and Wildlife Service (U. S. Department of The Interior), The Pennsylvania State College, the Pennsylvania Game Commission, and the American Wildlife Institute cooperating.

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**Department of Zoology and Entomology, The Pennsylvania State College.

Meat in the pot for next season.

In 1941 there were 123 crops available for analysis. The results of this analysis were similar to those of 1940. Out of the 56 species of known seeds, corn occurred 63 times as 51.4 percent of the total volume consumed. Animal matter, mostly insects, occurred 32 times; and unknown seeds occurred nine times. The percent of total volume and the times occurring for each item is shown in table 3. However, it should be noted that in both tables 2 and 3 the number of times an item occurs cannot be directly correlated with the volume consumed. A seed which occurs several times may not have occurred in sufficient quantity to be measured and thus is listed as "trace" in the percent volume column.

### Comparison of 1938-1939 with 1940-1941

From an analysis of 423 pheasant crops in 1938 (Bennett and English, 1939), there were 56 known species of vegetable foods and six groups of insects. Corn constituted the main preference over all other foods occurring 253 times as 54 percent of the total volume. In the fall of 1939, 84 crops were analyzed (English and Bennett, 1940). Corn was found in 37 of the crops and constituted 41 percent of the total volume consumed. The second important food in both years was lesser ragweed.

In the 1940 and 1941 studies, corn was found to be the most preferred food, with lesser ragweed and skunk cabbage as second preferences. In table 4 is recorded the most preferred fall foods, according to percent volume, of the ringneck pheasant of Pennsylvania over the four-year period, 1938-41.

### Food Habits of Pheasants in Other States

The preference for corn is not a habit confined only to Pennsylvania pheasants. Dalke (1937) found, from crop analysis, the same preference of adult pheasants in Michigan. He also found lesser ragweed, skunk cabbage, and foxtail grass to be important among the weed seeds. In North Dakota, Munro and Saugstad (1940) reported from their crop analysis that corn led the list of crop seeds and ragweed was high up on the list of wild seeds. Skoglund (1940) found that game farm birds when given self-selection of crop seeds preferred corn to all other crop plants. In Wisconsin, Gigstead (1937) found that 54 percent of the food taken was made up of corn and lesser ragweed if available. Severin (1933) stated, "Corn is undoubtedly the most important single food item in the diet of the pheasant in North Dakota." Therefore, it appears that pheasants prefer corn and lesser ragweed over much of the range in the United States.

### Results and Recommendations

The most preferred fall foods of the ringneck pheasant in Pennsylvania as determined by crop analysis are corn, lesser ragweed, skunk cabbage, buckwheat, foxtail grass, sorghum, beans, barley, wheat, wild grapes, and grasshoppers (table 4). Of these foods it should be noted that six are crop plants, corn, wheat, buckwheat, barley, sorghum, and beans, and the remainder, with the exception of wild grapes and skunk cabbage, are closely related to farm lands. From this observation can be drawn the conclusion that so far as fall foods are concerned, pheasants prefer farm lands to wooded areas. Of the most preferred foods, corn was the outstanding preference in all four years; thus, not only farm lands are desired, but farm lands which produce much corn.

Randall (1940) found in his study that small grain stubble fields furnish good fall and winter food as well as cover. It is in these fields that such weeds as ragweed, foxtail grass, and smartweed flourish, all of which furnish food for these birds. Clipping these fields in the late summer as a weed control measure is very unfavorable to game as it destroys the food value as well as the cover value of these fields. There is also considerable doubt as to its value for weed control, at least for some species. Chippendale and Milton (1934) stated, "Viable weed seeds may be found in the soils of lands which have been in pasture sod for many years."

It is evident that pheasants prefer certain types of range during the fall. The important point to sportsmen is to obtain informa-

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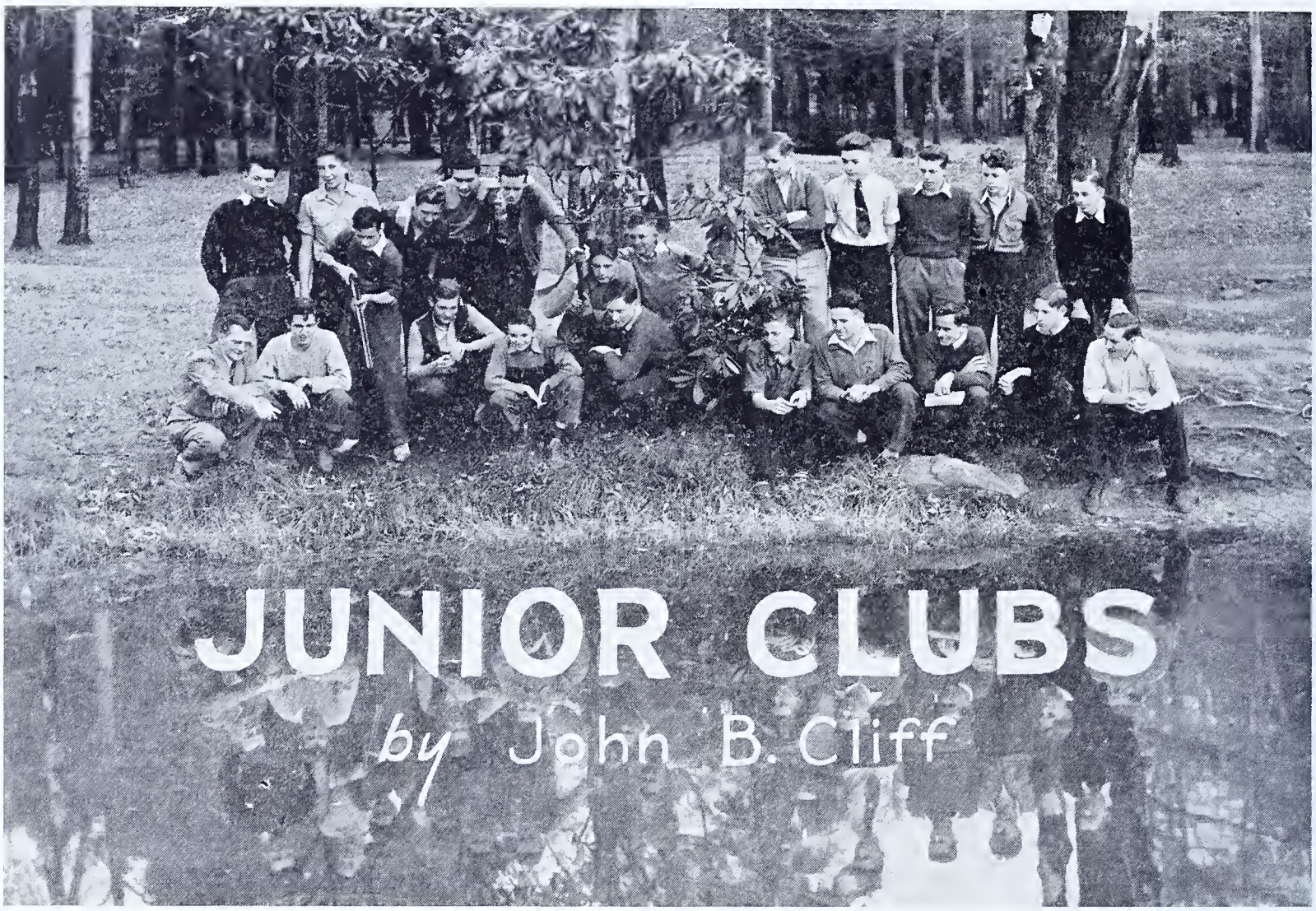


The 1942 Kane High School Hunting and Fishing Club.

IT'S the story behind the news that oftimes merits recognition—and such is the case of the Kane High School Hunting and Fishing Club and its hard working rifle team. This organization today displays a plaque to signalize it's latest achievement of outshooting approximately 300 junior rifle clubs throughout the United States in postal matches conducted by the National Rifle association.

The news is the receipt of the plaque—the story, however, dates back three years when a group of boys in Kane High School approached Chris Feit, faculty member and well known sportsman, with the proposal of forming a Hunting and Fishing club in the school. With the Kane Fish and Game club having no provision for junior membership, Feit saw a definite need for such an organization and stepped into the picture as organizer and advisor.

More than a score of youths joined in a program which began with sponsoring moving pictures along educational lines for high school assemblies. As time passed, ideas developed.

The club concentrated on safety with firearms. Taking a cue from the famed Tony Acetta technique. the members gave a pantomime illustrating the right and wrong ways of handling firearms before close to 500 high school students.

The "dubs" illustrated every mistake a hunter could make in handling a gun and the "experts" showed the proper ways. Off-stage the sound system was used to explain what was being portrayed. The presentation was impressive to the student body—at least it was voted one of the best assembly programs of the year.

The boys did not start out on fire, and under the wise influence of their advisor, were content to develop inexpensive hobbies and work up gradually to a more elaborate program of activities.

The club arranged its regular moving picture showing to coincide with dates of the Kane Fish and Game association meetings, and the pictures were later shown to the adults, using high school equipment. Feit, also active in the adult organization, urged a plan of junior memberships which was unanimously adopted. In the new arrangement, the youngsters received all the privileges of the organization at a small fee.

It was a wise move for the adult club as was later proved in game feeding, stocking, refuge construction, and practically all phases of activity.

After an unusually severe winter the great herd of deer in the Allegheny National Forest was starving and emergency efforts were made to provide feed. The Kane High School club swung into action as a unit and was largely responsible for success of the feeding program.

Then came the test which was to either make or break the club—the effort to get a rifle range in the high school. Advisor Feit appeared before the Board of Education to ask permission to construct the range. He explained the activities of the organization with emphasis on the value of teaching the youngsters the proper handling of guns. The board took a broad minded attitude on the request and granted permission for the range, fixing a location under the new high school annex. No funds, however, were available to help with the project.

With news of the board action, an enthusiastic group of boys armed with shovels, picks and any tools they could find, dug into their job with a grim, "and grimy" determination. Every day after school hours and on Saturdays, Feit and his crew dug dirt—hard clay and shale rock that made progress slow and difficult.

In a few weeks, an area had been excavated resembling a 60-foot tunnel with pits at each end. The boys fairly glowed with pride in their achievement although they did not expect the range to be fully completed before they were through high school. Then came the unexpected "breaks" which were to re-

(Continued on Page 32)

1. "Home on the Range" with two members ➤ using rifles supplied by the Director of Civilian Marksmanship, Washington, D. C.

2. The ladies sharpen their eyes. They too have formed a Rifle Club and have turned in some top scores.

3. Rifle Club of the Kane High School Hunting and Fishing Club. Seated left to right: Clyde Nelson, Arthur Fredell, James Peterson, Robert Ross and Arthur Grolemund; standing left to right: Lawrence Swanson, William Williams, James Calvin, Fred Trimble and Howard Hennell.

4. Two members of the Junior Club prepare a shell collection for display in the High School.

5. The boys have tied some high grade artificial flies—many from live models picked up along the streams.

6. Advisor Chris Feit prepares to release a bunny as a very young Junior member looks on.

7. A doe, too weak to rise, snapped by George Halliwell of the Kane High Club on a feeding expedition.

8. The Junior Club constructing a crow trap.

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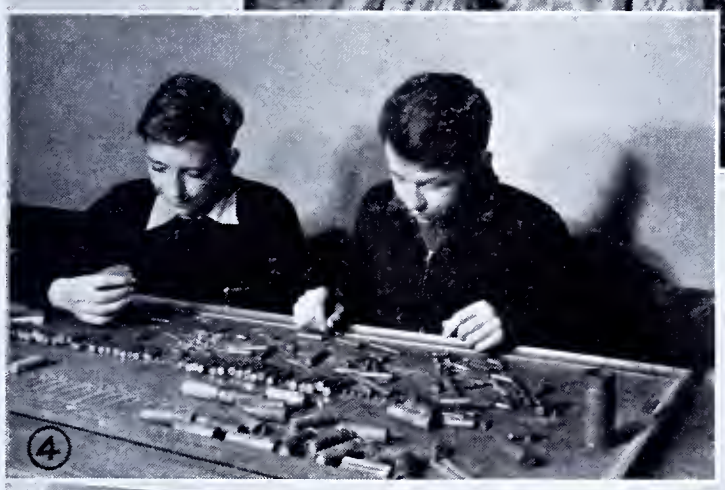
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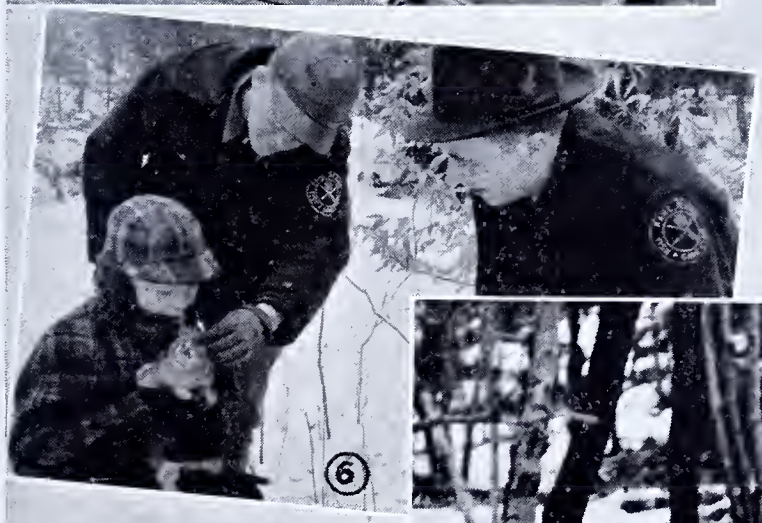
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# The Cooperative Farm-Game Program

*Editor's Note: The following material was excerpted from reports submitted by the Divisions of Land and Land Management.*

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Pennsylvania Game Food Plot Mixture is planted on many cooperative projects.

THE other day I read several interesting reports on the Commission's cooperative farm-game program and forthwith decided to boil them down for our readers' benefit, especially since the Commission expects to expand that program as much as possible during 1942.

Six years have gone by since the Commission started (in 1936) to improve small game hunting conditions for farmers and sportsmen near large centers of population in the more intensely cultivated sections of the State. During that time considerable progress was made and from the two cooperative areas established that year there have sprung nearly 80 of these units.

Most of them were established during 1937 and 1938 when real active campaigns to promote the program were launched. In the following years others were added and some even dropped, but the program was not pushed very hard after the initial effort, the idea being to first observe it carefully and ascertain its worth before plunging into any major campaign of expansion.

### Projects Established

The number of projects established and operative during the hunting season since 1936 are as follows:

| Year | No. of Projects | Total Acreage |
|---|---|---|
| 1936 | 2 | 1,900 |
| 1937 | 31 | 29,699 |
| 1938 | 26 | 42,226 |
| 1939 | 83 | 131,467 |
| 1940 | 82 | 151,527 |
| 1941 | 78 | 147,584 |

During the first several years the program was in operation investigative surveys of the established areas were conducted to secure reasonably accurate information as to whether or not the cooperative plan was functioning properly and whether it was beneficial to farmers as well as sportsmen. The survey indicated that practically all the sportsmen liked the plan and wanted the program expanded. Furthermore, less than 2% of cooperating farmers registered complaints of any kind which proved that all but a very few of them were in accord with it.

By the end of the 1938 hunting season it was felt that the program had passed the experimental stage—in fact, it was the opinion of the Commission that the plan would, in all likelihood, sell itself from there on without any vigorous endeavor. This was largely true. In fact, the program has proved so popular and has been so successful in accomplishing its original objectives that the Commission expects to expand it as much as possible during the coming months. The fact that the sportsmen like it, and that by far the greater majority of farmers who have cooperated for several years are satisfied that it operates to their advantage, is proof of its popularity.

### Few Difficulties Experienced

The only difficulty experienced in the whole setup, aside from the few cancellations of agreements by landowners who were dissatisfied, have been the changes in farm ownership which have created somewhat of a problem. In all too many instances during the past four or five years the Division of Lands was not immediately notified by the cooperators when the farms changed hands. Consequently its records and maps were sometimes not up to date. These changes should be reported immediately so that the local Game Protector or other representative of the Commission will have an opportunity to persuade the new owners to become cooperators. During 1941, 42 agreements were cancelled, covering a total of 5,060 acres most of which were for farms where ownership had changed.

### Reports Favorable

Reports indicate that hunters, at least the large majority of them, have used the cooperative areas. The real sportsmen have lived up to the rules of the game; and that they enjoyed better hunting because of the managerial phases of the areas in the way of refuges, food plots, restocking, etc., is borne out by an analysis of the kill.

One of the reports I had the pleasure of going over listed some very interesting data on the amount of game stocked and the amount bagged. For instance in 1940 the following game was stocked on the various projects in operation that season: 5,763 rabbits; 5,528 ringneck pheasants; 6,159 bobwhite quail; 297 squirrels and 13 raccoons—a total of 17,760 pieces.

Hunters on the projects during that season secured, at a conservative estimate, a total of 84,110 pieces of game divided as follows: 47,167 rabbits; 885 ruffed grouse; 17,636 squirrels; 15,177 ringneck pheasants; 2,801 bobwhite quail; 261 raccoons and 183 deer.

The total indicates that each hunter took an average of 1.7 pieces of game, and that one piece was killed for each 1.8 acres of total project area, or one piece for each 1.3 acres of project area open to public hunting. It weighed a total of 161,395 pounds which, figured on the basis of 40c per pound, included a meat value of $64,558.00 or 42.6c per project acre. In terms of weight each hunter took an average of about 3.3 pounds.

In 1941 the following game was stocked on the areas then in operation: 3,865 rabbits; 7,653 ringneck pheasants; 2,291 bobwhite quail; 127 Hungarian partridges and 9 raccoons—a total of 13,945 pieces.

Hunters that season took from the various projects a total of 85,433 pieces of game, namely: 50,417 rabbits; 2,321 bobwhite quail; 12,688 squirrels; 50 woodcock; 18,415 ringneck pheasants; 987 ruffed grouse; 526 raccoons; 25 ducks and 4 deer.

An analysis of the total indicates that each hunter took an average of 1.9 pieces of game, and that one piece was killed for each 1.7 acres of total project area, or one piece for each 1.2 acres of project area open to public hunting. It weighed 159,547 pounds which figured at 40c per pound, amounted to $63,819.00 or 43.4c per project acre. Each hunter took an average of more than 3.5 pounds.

### Costs of Administration

Without doubt these figures paint a rosy picture, and it is a true picture; but, there is a lot more goes into the program than the mere matter of going into the field each season and bagging this or that piece of game. It costs money to administer the projects; it takes a lot of work on the part of the Commission's personnel as well as the cooperating landowners. For example, over 100 acres of food plots were planted or bought from cooperating farmers, each year since the program has been in effect. These were scattered over areas where needed in small plots for the purpose of supplying food and cover for wildlife. A number of farmers cooperated without compensation in planting food plots, and others agreed to permit some uncut grain to remain in the field without cost to the Commission. Additional grain raised on State Game Lands by sharecropers was used for necessary winter feeding on the projects.

A resume of the cost of the 5½ year period since the program was put into effect indicates that a total of $156,244.69 was spent as follows:

Securing Agreements and Mapping Project Areas—$18,779.79 or 12.0% of the total amount spent.

Establishment of Refuges, Safety Zones, etc.—$44,225.28 or 28.3% of the total amount spent.

Protection—$37,817.15 or 24.2% of the total amount spent.

Development and Maintenance—$55,422.47 or 35.5% of the total amount spent.

It naturally costs a lot of money to develop and maintain any project from which reasonable dividends are expected. The Commission has been carrying this burden with much less aid from the sportsmen than it anticipated. If these areas are to be developed so they will support a larger game population and thus provide more and better hunting in the future, the sportsmen will have to get behind and push the program a lot more. One of the best ways they can do this is by improving environmental conditions on various farms wherever the landowners' sanction and cooperation can be obtained. More cover for wildlife is also badly needed on many of the farms, which opens an avenue for sportsmen to cooperate by furnishing and planting trees, shrubs and vines on untillable spots such as ravines, rocky areas, eroded slopes, etc. Farmers are usually willing to cooperate, but they cannot be expected to spend much money, nor to devote an unreasonable amount of time.

### Sportsmen Cooperation

Many sportsmen's organizations buy imported rabbits of doubtful value each year for stocking purposes in an effort to help improve hunting conditions. If a portion of the money expended for that purpose would be used to procure evergreen seedling trees and food producing plants of various kinds for planting on farms where the farmer's cooperation can be secured, or to run fencing around small choice cover plots to keep livestock from denuding them, better hunting would soon be assured.

Sportsmen can also help by furnishing cooperating farmers with supplies of Pennsylvania Game Food and Cover Plot Mixture so that food plots may be planted in order to provide adequate food and cover during fall and winter. If this cannot be done, it may be possible to purchase from the farmer concerned and leave standing a few rows of corn for the benefit of wildlife during that period.

At this particular time they have a splendid opportunity of showing cooperating farmers that they are interested in and willing to help them with their problems. Because of the existing grave National Emergency, many farmers will be unable to obtain adequate help when most needed. Sportsmen can do their part by helping to plow fields and plant crops, and by helping to cultivate and finally harvest the crops.

### Special Wildlife Refuge Projects

The Commission hopes that more sportsmen organizations will take advantage of and use the somewhat similar plan of farmer-sportsman cooperation which provides for the creation of special wildlife refuge projects.

Under this plan, the organizations themselves enter into cooperative agreements with farmers, and their project areas are set up quite similar to the Commission's Cooperative Farm-Game Projects. Unfortunately, sportsmen apparently have not taken hold of the newer program as rapidly as contemplated. They should get busy and make use of it because of several distinct advantages to them, i. e.:

1. The plan is applicable in every county of the State, whereas the Cooperative Farm-Game Program is restricted to 14 counties in the southeastern section of the State, and 13 counties in western Pennsylvania.

2. The newer plan provides an opportunity for sportsmen to become acquainted with farmers on whose land they desire to hunt, and the many problems confronting farmers. Through such cooperation, beneficial and lasting friendships result.

3. It provides sportsmen's organizations with a work program throughout the year, and nothing will better hold an organization together than an objective upon which they can work the year round.

These projects now number 109 containing over 40,000 acres. The cost to the Commission to date on these projects has been only $1,076.10 or 3.6c per acre. The Commission enters into the program only to the extent of furnishing agreement forms, educational leaflets and posters, and since there is ample material of this kind on hand at the moment it means that there probably will be no additional cost for such projects, or for additional ones which may be established, during the coming year.

You have just had a brief resume of a program which merits your wholehearted support. If you want better hunting, if you want to establish better relations between farmer and sportsmen, if you want to be good conservationists at a time when this country needs all available resources and every available man to protect them, put your shoulder to the wheel and help get it moving. Cooperation Wins!

**Pennsylvania farmers have been generous in making their lands available to hunters, some of whom, unfortunately, do not recognize the courtesy and fail to return it. Hunters should always conduct themselves like gentlemen.**

# Pictures from Our Readers

**The followng were submitted mostly with Game-kill Reports, some with very little identification.**

Charles A. Kragle of Trout Run bagged a nice one.

A new way to bring 'em home. The bear was killed by Louis Wesling of Pittsburgh, last season.

William Derench of Freeland scored a hit.

E. E. Deitz of Clarion, brought home the bacon.

Mr. Ward Mathias, R. D. 1, Hummelstown, is proud of this one.

Lester M. Hilbish with nice trophy bagged last season.

"Not unlike the proverbial saying—"curiosity killed the cat"—in this case by the same token it killed a grey squirrel. Mr. squirrel in the photo was evidently anxious to learn what was inside the heavy insulation of the high tension line, with the result that he sank his sharp teeth through the insulation to the heavily charged copper wire. His left hind foot, you will notice, is in contact with a guy wire which served as the ground, and completed the circuit. Here is truly a case of aerial electrocution." The incident occurred at Ontelaunee Park, New Tripoli, Pa. The photo was taken by Paul Fister.—Ernest A. Kistler, New Tripoli, member Ontelaunee Rod & Gun Club.

Raymond Swingle, Uniondale, Pa., with his fourth deer in as many years—a 9-pointer with a spread of 19½ inches.

"Last fall while hunting in Cumberland County, with some friends, we came across an odd condition of "deer hooking" as the above picture reveals. This buck must have been an efficiency engineer. He located two saplins that were just the proper distance apart to fit his antlers. Close inspection indicated that he polished both antlers at the same time thus cutting the operation and time in half. (Put him on a war production job)."—E. L. Fenster maker, Lancaster.

A nice 10-point killed by H. F. Spencer, Duke Center, Pa., last season. It weighed 143 lbs. hog dressed.

John H. Yount of Mayport, Polk Township, Jefferson County, 75 years old, hunts and traps the Bear Pen section and has killed over 50 cats (wild cats), hundreds of foxes, 12 bears and participated in the killing of 25 deer. John, his son and grandson have trapped over 50 beaver and stretched them on steel buggy hoops. They trap only when the hides are prime.

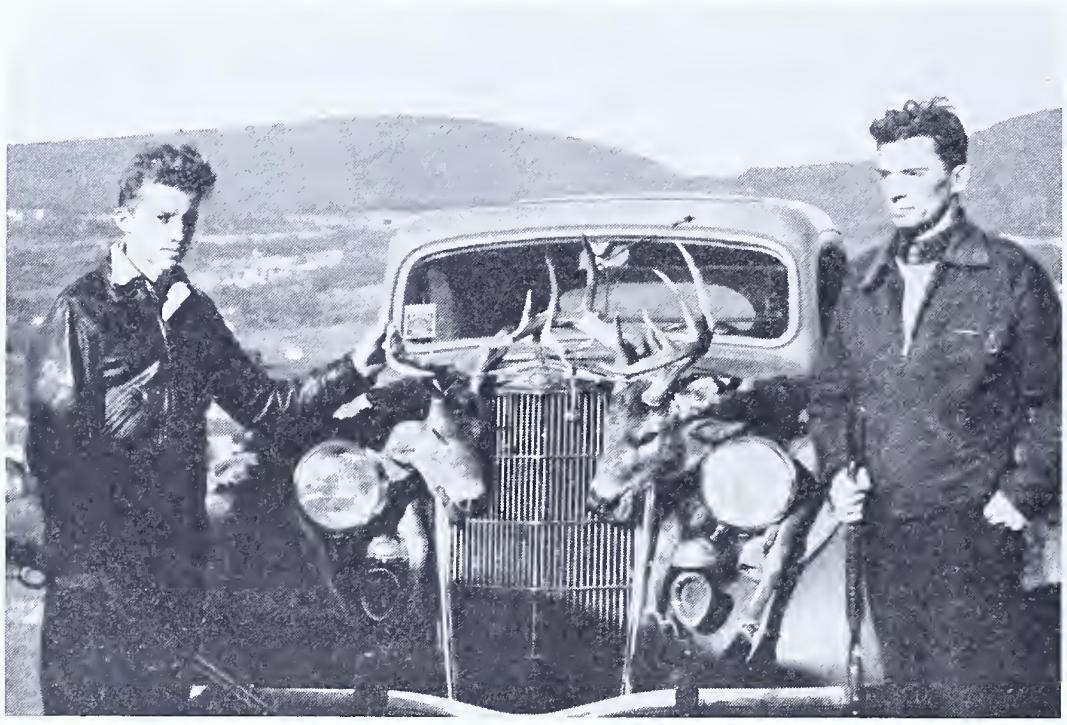
Photo by Anthony Kastan

Victor Bonno, member of Blaine Hill Hunting Club, Elizabeth, Pa., with evidence of his skill.

"While one of our old field pumpers was patrolling a 3-inch pipe line, looking for possible leaks, he came upon a large cat which was frozen to the pipe line. From all indications it had walked through some swampy ground close by and then jumped up on the pipe line. During the night three of his feet were frozen to the pipe. As the pumper approached the animal it pulled its front foot loose, struck at the pumper and tried to bite him. He called me, and I put the creature out of its misery."—H. Douglas Brown, Jr., Deputy Game Protector, Oil City.

# IN THE BEGINNING

*Continued from Page 3*



**Two buck deer shot in Tioga County by Clement Skirpan, age 18, left, and Andrew Skirpan, both of Olyphant, Pa.**

I remember it distinctly because one of the wagon wheels "froze" on the axle and we had to get a farmer out before daylight to throw water on it. With good dogs, we hunted faithfully **over a large territory and saw and killed only one rabbit.** That was the condition in Pennsylvania then. Hunting over part of that territory today, one would have no trouble in killing the limit of rabbits and perhaps ringneck pheasants and quail.

"In 1889 I went deer hunting in one of our northern counties between Brockwayville and Ridgway. At daylight one morning, with a friend Hiram Frost, we jumped a buck. About six inches of snow had fallen the day before. We tracked the deer all that day, camped on his trail that night, followed him all the next day back to where we had started him, and that night slept at Frost's home in Brockwayville. The next morning at daylight we took up the trail again and jumped and killed the buck. During all that long chase we did not see another deer track. As we stood over the dead buck I said to my friend 'I fear I have killed the last deer in Pennsylvania. I will never kill another in this state, and I never have. Today that country is well stocked with game, deer in particular."

I next asked him if any organized movements of any kind were made to establish some program for saving wildlife in the early days and was rather surprised at his reply. He said that there were many trap-shooting clubs in the state in 1890. Most of the members were hunters.

"That year we got them together and organized the Pennsylvania State Sportsmen's Association, which, I am glad to say, is still going strong. We decided to get a Game Commission like other States had. At that time 34 States had conservation commissions of one kind or another. I was asked to see my friend, Senator Matthew Quay. When I explained the matter to him he said that it could not be done because it would likely upset the politics of the State. I presented the arguments of the sportsmen as forcibly as possible and said that we simply desired a Commission to see that the game laws were enforced. I told him I did not think that there would be enough sportsmen to dominate the politics of the state, and that even if they did they would be an asset to the state since they were conservationists who wanted to enforce the game laws and bring back our wildlife and preserve our forests. He still declined to help us."

"What did you do then?" I asked.

"We went on with the fight and in 1895 succeeded in having a law passed authorizing our governor to appoint a Game Commission of six men. These men were to be sportsmen and were to serve without salary and pay their own expenses. No appropriation whatever was made for the optrating expenses of the Commission, the intent of our politicians evidently being to nullify their work and render the Commission helpless.

Of the new Commission, four of the appointees were members of the Pennsylvania State Sportsmen's Association. They chose as their president my friend, Wm. M. Kennedy, an enthusiastic sportsman, formerly mayor of the city of Allegheny. For secretary they secured the services of the late Dr. B. H. Warren, State Ornithologist. In 1898 the late Dr. Joseph Kalbfus, one of our greatest conservationists, became Secretary and Chief Game Protector. The Doctor was a dentist by profession although he had also studied law. He served the Commission for a number of years without compensation, working at his profession during the day and attending to the business of the Commission at night."

When I queried him about some of the first undertakings of the Commission he replied, "The Game Commission at every session of the Legislature fought for an appropriation to carry on its work. The legislature finally appropriated the munificent sum of $400.00! Owing to lack of funds, the Commission was compelled to employ game protectors who received as pay one-half the fines assessed against law violators, the balance being placed in County School funds. This system made many enemies for the Commission, particularly among the law violators.

"In one year 14 game protectors were shot at, 7 hit and 4 killed. Finally in 1906 one of our protectors, Seely Houk, was killed near New Castle. I investigated the case at the scene of the killing and immediately received a Black Hand letter advising me to keep my hands off. I called on Dr. Kalbfus and, with the consent of Governor Pennypacker, we employed an Italian Pinkerton detective. With the evidence secured by this man, and with the aid of our State Police, we rounded up a Black Hand gang and hung their leader, Raco Rocco, the murderer of our game protector. I cannot recall of a protector being killed since.* Then in 1905 my friend, Mr. Kennedy, resigned from the Commission in disgust, and against my will I was appointed in his place."

When I asked him if appropriations increased from year to year, he replied "The meager legislative appropriations increased from year to year but were never adequate for the increasing scope of the Commission's activities. When I became a member in 1905, the appropriation was $10,000 a year, more than it had been receiving, but still inadequate, and to secure even this small sum from the legislature the Commission had to play politics."

I had often heard that most of the early day legislation sponsored in the interest of hunters was bitterly opposed by them, so I asked him if he would tell me something about the headaches the Commission had at the turn of the century. He laughed, and said he could write a book on that one. Nevertheless, he went on "Our Pennsylvania Sportsmen's Association, prior to my appointment in 1905, had been advocating a resident hunter's license law. We found the Commission, dominated in their views by the politicians themselves strongly antagonistic to the idea since the organized market hunters and game law violators were lobbying against it.

In fact, when the first resident hunter's license was presented to the Commission by E. K. Morse, of Pittsburgh, in 1906, it was turned down and our Commission President, in our report to Governor Pennypacker for that year stated "I think the Game Commission should be supported by appropriation from the state rather than by a personal tax."

Then the fight was on!

"After the death of Senator Quay in 1904, Senator Boise Penrose became supreme in Pennsylvania politics. He was a sportsman, an able statesman, and a power in national affairs with the interest of Pennsylvania at heart. I knew the senator quite well through his brother, Dr. Charles B. Penrose, who was one of the ablest members of the Commission, but who had no influence over his brother. So, I went to the senator and also wrote to him, asking him to help us get a $1.00 resident hunter's license law. Like Senator Quay, he also had the idea that such a law would upset the politics of the State. He pointed out that Pennsylvania was a mining and industrial state and that a combination of the

*Game Protector Joseph McHugh of Carbon County was killed by a game law violator in 1915.

sportsmen and conservationists would be difficult for the politicians to handle. He claimed that he represented 100 percent of the people, including the two percent that were hunters, and as evidence of the disturbance such a law might cause, cited the case of West Virginia where a hunter's license law had been passed and subsequently repealed and through it the politics of the state reversed."

"I suppose you lost heart when he refused to support the plan?" I commented.

"No. We just began to fight. Backed by the Pennsylvania State Sportsmen's Association, the Lewis and Clark Big Game Club of Pittsburgh, the Pennsylvania Fish and Game Protective Association of Philadelphia, the United Sportsmen of Pennsylvania of Scranton, and a number of smaller organizations and thinking sportsmen, we carried on the fight against the advice and wishes of Senator Penrose and most of the politicians of the State."

"Where did the most opposition come from?"

"I found the most violent opposition centered in the Hunters and Anglers Protective Association** with headquarters in Harrisburg. This organization, claiming 75,000 members, and to control 500,000 votes, was banded together, not for the protection and propagation of game, but to protect themselves from the game laws and to oppose the work of the Game Commission. This war cry was—"Millions for defense but not one cent for tribute."

"Members of this organization not only violently objected to the resident hunter's license law, but opposed the establishing of game refuges, the prohibiting of the use of automatic guns, the buck law, later in 1923, the doe law, and all other constructive measures that the sportsmen advocated. To assist in carrying on their destructive work they issued a magazine devoted to vituperation, slander and false statements concerning the motives of the Commission. Some quotations from that publication are as follows:

September 1912: "The opposition to the use of pump and automatic shotguns in hunting continues to simmer along, but if the diminishing reports of this activity coming in from various seats of the State government can be relied upon the battle is waxing cold."

February 1912: "The truth of the matter is that the Game Commissioners are fundamentally wrong in everything or nearly everything they do with respect to game. The large game preserves are a crime against the people who own the game."

April 1912: "Hunters of Pennsylvania are not oblivious of the grave danger which confronts them though they are apparently careless concerning it to a fault. During the next session of the Legislature an effort will be made to force the odious resident hunter's license to passage. Previous attempts have failed and we fondly hope and firmly believe that the coming effort will be fruitless."

May 1912: "The season is about to open for the operations of the crooked Game Warden, and his side partner, the crooked Justice of the Peace, on the ignorant foreigners who kill protected birds. Every spring and summer these pestiferous ulcers on the body politic rake in hundreds of dirty dollars from the hard earnings of these ignorant aliens."

June 1912: "The resident hunter's license law will diminish the number of hunters and correspondingly increase the opportunities of the leisurely gentlemen of wealth who spend two to four weeks annually in the woods, and with bench show dogs and the most expensive and complete equipment, shoot sections of the Commonwealth until there isn't a hair or feather left."

February 1913: "Finally it might enable the game authorities to establish numerous and vast game reserves upon which to propagate game to be subsequently taken by themselves."

February 1913: "Trapping bear in steel traps is the most human way to capture them. Of course it makes them very mad and ugly. A bear doesn't enjoy being trapped as much as he would carrying off a pig under his big arm and eating it alive."

September 1913: "A law like this (hunter's license) enacted by fraud must be enforced by fraud. Those who forced this nefarious measure upon the public will pay the penalty in due time."

"What did you do to combat the opposition?"

"To counteract this vicious magazine, the sportsmen established in Pittsburgh a magazine called "In The Open," devoted to a frank and open discussion of the problems of constructive conservation with such authorities as Dr. Hornaday, George Shiras, III, (just recently gone to his Great Reward), Howard Eaton and many others of equal prominence and integrity, as contributors. Naturally the opposition group, claiming as it did so large a membership, carried weight with the politicians. Therefore the law was defeated at successive sessions of the Legislature. But each time we were licked, we profited by the experience and brought forth new arguments showing why it should be passed."

"When did you first start to make real headway?"

"My boyhood friend, John K. Tener, a good sportsman, had been elected Governor of Pennsylvania in 1911, and I was happy to be one of his official family. At the beginning of his administration he asked me what the Game Commission wanted. I told him 'only one thing.' Give us a resident hunter's license law to bring back wildlife to Pennsylvania and I will die happy! He promised to do everything in his power to help.

"You will remember that the year 1913 was a Roosevelt year in Pennsylvania. I went to see the Colonel and explained to him what we wanted. He was enthusiastic about it and told me to write him a letter giving the facts. Later I received from him a strong letter, such as only he could write, recommending this idea to our sportsmen of moderate means who had not the time or the money to go far afield in search of game since it would bring the game home to them. We had this letter photographed and distributed throughout the State. It had telling effect and I think went a long way toward licking the opposition."

"So you finally won out?"

"Yes, the $1.00 resident hunter's license law was finally passed by our Legislature in 1913, eighteen years after the Game Commission was organized, and was immediately approved by Governor Tener. From that time we really made progress with our work and in establishing game refuges and other projects.

"We believe we were the first to incorporate in the law the stipulation that the funds derived from the hunters licenses were to be set aside in a fund separate and apart from other state moneys, to be used exclusively by the Game Commission for the purchase, protection and propagation of game and song birds and the payment of bounties on noxious animals."

"You had other irons in the fire the same time the hunter's license law was the subject of such a controversy, didn't you?"

"Yes, in the meantime, we had been advocating against opposition other laws, among them our game refuge law, our law prohibiting aliens from owning rifles or shotguns, prohibiting the use of automatic rifles and shotguns, and the buck law, as well as many other laws enforced in other states with good

(Continued on Page 31)

**There is now a Hunters and Anglers Association in Harrisburg but it is a splendid cooperative organization.

The first game refuge was established in Clinton County in 1905.

# TRAINING THE 'COONHOUND

*By Paul P. Prugh*

*Editor's Note: First of a series of short articles on training 'coonhounds.*

★

The author and a pupil.

FELLOW SPORTSMEN, I do not pretend to be a great authority, I speak only from experience. In training the 'Coonhound I have found that a great deal depends on what is in your puppy's make-up, as to what kind of a 'coon dog he will be, and how much trouble it will be to make a 'coonhound of him. I would not go so far as to say that a pup not bred for 'coon will not make a 'coon dog, for some of the best hounds I have ever known or hunted were dogs of questionable breeding. In fact my old dog has no papers or blue ribbons attached to him, but he does have a head full of 'coon sense. The point I wish to stress is that a pup with generations of good trailing, tree-barking ancestors behind him, will in all probability make your job of training a much easier one.

So, first try to choose a pup whose family tree has a bunch of good trailing, tree-barking hounds sitting under it; Black and Tans, Blue-ticks, Red Bones, or whatever they may be.

Next, I find an old tried and true 'coonhound, to be a great asset in his training. From the time he is five or six months old, keep him with your old dog, and you will find later they will be inseperable in the field. The puppy will also pick up many traits of your old dog in their associations together.

Now here is the way I started my Black and Tan puppy. You may not wish to do this; he'll be a cat dog you'll say. What of it? Most any dog that will tree a 'coon will tree a cat or 'possum if he is a real 'coon dog, their scent being so similar. And stray house cats, reverted to the wild and running at large in the woods, are a great menace to our birds and small game, and should be done away with to protect birds 'nests and baby bunnies.

When my pup was four months old I made him acquainted with Bing, our old home cat. An evening or so a week I would put old Bing up in the plum tree in the back yard, let the puppy out of the kennel and got him barking at the cat. I would then put the cat down, give him a start and that clumsy pup would give chase, running him under some out building or some other refuge.

As the pup grew older the old cat didn't have time to make it to his usual refuge, but shot up the first tree he came to in his flight, hissing and teasing the pup who barked "treed" at him furiously, without any coaxing from me. When this was accomplished I let up on this training in order not to spoil the pup by not letting him catch the cat. His next lesson would be actual hunting in the woods. As for the old cat, he thoroughly enjoyed this game, and even today will go out to the kennel, put his paw through the fence and tease that pup.

Do not start hunting your puppy too young for he may tire too easily and become disgusted. A year old is plenty young to take him into the woods for his first run with your old dog. Don't make this first hunt too long; an hour or so is sufficient. He probably won't leave you long at a time the first time out, and he may not leave you at all, the surroundings and everything being new to him. Each night out he will become bolder and more inquisitive, wander a little farther from you, and finally trail along with the old dog instead of you. You are starting to make a 'coonhound now.

When the old dog starts opening up on a track, go to him with the pup, if the pup is not already with him, and you will soon hear that puppy chiming in now and then where the trailing is easy. He won't stay with it at first, but will come back to see where you are, looking for your praise. Now is the time you must exert all your patience and use every care, urging him on, keeping close to your old dog with him whenever possible. And, when your old dog trees, that puppy will soon be there with him tuning up, although he may not see his quarry in the tree above him, as he did the old cat. Never scold him, for any reason, at the tree. At this time you should whenever possible shake the 'possum or cat down for him, but not a 'coon, unless it is first shot, for it may cut him up and make him afraid.

When he helps make his first kill, he will think he has done something, maybe become a little cocky, growl at the old dog, etc. But your old dog will understand and kind of grin to himself, for he has been through the mill. The pup may at this time think he is quite a hunter and take off after most anything that jumps up in front of him. This is the time for discipline, also the time when his breeding will tell. If he has good 'coon blood in his veins, he won't need much discipline. If he should tear off on tracks your old dog won't even look at, call him to you and let him know he's doing wrong. I have never once had to punish my pup. Oh yes, he would at first take a few jumps after a bunny, etc. I would call him to me, scold him plenty, and soon he quit this foolishness altogether, for my praise when he was doing good far offset his desire to run trails he shouldn't, and his eagerness on a 'coon or 'possum trail increased with his training.

This is the time you will have to do your part too. Stick with the pup whenever and wherever it is humanely possible. Never leave the woods without him, and encourage him both on the trail and at the tree, for remember always, a 'coonhound is really only a puppy until three or four years of age no matter how big and mature he may seem. In his mind and actions he is still a puppy.

The fellows who have thoroughly trained 'coonhounds at a year and a half and two years of age, I'm afraid just never saw a 'coonhound. I don't care what breed of hound he is, if he's a 'coonhound he will be at his best from five to nine years of age..

This is just one man's sayso fellows. Take it or leave it, but I feel sure from experience, some of it bitter experience, that if followed you will find great pleasure watching that puppy learn, and in due time, have a real 'coonhound.

# CHESTNUTS IN PENNSYLVANIA « « « By A. B. CHAMPLAIN

*Editor's Note: This is the first of a series of articles on nature-lore by A. B. Champlain, State Entomologist, who will confine most of his future material to insect life.*

Photo Pa. Dept. Agriculture

Native Chestnut

Who knows whether the old-time chestnut stands will ever be back with us again—and the echoes answer—who knows? However, up along the open rocky parks of Stony Mountain in Dauphin County, chestnut sprouts grow and fruit. This is no doubt true of other localities.

While hunting in the vicinity of the Shack (Rattlesnake Shack) for *Laptura emarginata*, that beautiful longicorn beetle, giant of its kind, we came across chestnut sprouts in flower. The sweet scented plumes of the staminate catkins and the fertile flowers at their bases were teeming with small insect life. This called our attention to them and reminded us that we might later look for fruit.

Incidentally, we collected our Leptura laying her eggs in a standing dead birch and a fine prize she was—but this has nothing to do with chestnuts, except that we noted several other groups of chestnut sprouts anywhere from five to thirty feet high in bloom. Our log records these events during June 26 to July 4.

During late September and early October we again visited the area and found the chestnut burrs in perfect shape, some of them opening from the first touch of Jack Frost's chill breath. Many of the sprouts had been attacked by blight and sooner or later must succumb, but not before a crop of seed is dispersed up among the rock piles, where the air and sunlight give them a chance.

The reward for our trouble, in addition to hands and fingers full of burr points, was several quarts of sweet old-fashioned chestnuts and the thrill of outdoor discoveries.

# MAYAPPLE

« « « By R. B. TROXEL

ANYONE interested in life will be out of doors during this interesting season of the year. To know the names of some of the plants and animals you meet on the trail you take is one of the essentials for the enjoyment of outdoor life. Many plants will make their appearance this month but if you get out along a roadside, a fence, or in the open woods and you find a patch or colony of plants that have leaves resembling a miniature umbrella, you have found the Mayapple. A number of leaves come up side by side because of the branching root stock that grows from year to year and aid in spreading the plant. Sometimes they are found in the open sun but usually are found in places that are partly shaded.

Photo Pa. Dept. Agriculture

Mayapple

The flowers which are nearly two inches across and made up of from 6 to 9 waxy, white petals, come into full bloom during the month of May. The fruit which ripens later in the summer resembles an apple. The common name therefore, is rather well fitted to this plant.

The Mayapple produces two types of stems and leaves. The one stem is forked and produces a pair of similar leaves which are somewhat smaller and the stems are attached to their inner edges. It is from this fork or axil of the leaves near the top of the stem from which the waxy ill-scented nodding flowers appear. The other type of leaf has a single stem and leaf that is umbrella shaped with 5 to 9 lobes and the stem is attached to the center of the leaf. Flowers are not found on the single stem type. The edible fruit which is ripe in July or August is about two inches long, egg shaped, yellow, the skin is rather tough and the pulp contains many seeds. Most boys have a natural taste for wild fruit and you must learn to eat them when you are young. Many of our fruits have a more pleasant taste than Mayapples.

Some enjoy the taste but bad effects have come from eating the unripe apples and care must be taken of the leaves and roots for both are poisonous. Because of the medicinal

(Continued on Page 32)

# THE QUIZ BOX

"I guess he didn't trust the dam we built."

### CHANGING SEMI-AUTOMATIC PISTOL TO SHOOT SINGLE ACTION FOR HUNTING

Q. Can Semi-Automatic 22-Cal. pistol be made legal to carry for hunting, if magazine is altered to contain one (1) cartridge only, and yet the pistol can be loaded and shot single action, if hunter does not have a functional magazine in his possession, or must the removal of the single cartridge magazine be permanently fastened and stay in pistol at all times?

H.E.H.

A. It may be possible to legally carry this pistol for hunting if the magazine has been PERMANENTLY adjusted so that it will be necessary to reload the arm by hand after each discharge of only one cartridge. However, this procedure is not recommended, as the pistol even when so adjusted is still an automatic insofar as external appearance is concerned, and its possession while hunting would invite criticism of fellow hunters as well as others.

### CARRYING 22-CAL. REVOLVER IN BIG GAME SEASON

Q. Is it legal to secure a permit to carry a 22-Cal. revolver in big game season, and only use it to finish shooting a deer or bear after it is down but not dead?

H.E.H.

A. No, not if rim-fire cartridges are used. The law specifically forbids the use of this type of ammunition to kill big game, and makes no exceptions whatsoever.

* * *

### CARRYING LOADED REVOLVER UNDER PERMIT

Q. Does a permit allow a hunter or fisherman, going to target shoot, to carry a loaded revolver or pistol while using an automobile, either concealed or openly?

H.E.H.

A. Yes. But the practice is hazardous, and is not recommended. It should also be remembered that a revolver permit **issued to a hunter by a County Treasurer** does not permit the carrying of a revolver as above for target practice, but only for hunting or fishing.

### WOLVES AT HOME

Q. (1) Do wolves suckle their young like dogs, or do the parent wolves feed their pups by vomiting?
(2) Does a wolf drink by lapping up water the same as a dog, or do they suck in water, like a horse?

P.P.

A. Dr. E. H. McCleery, of Kane, Pa., has been kind enough to answer these inquiries:
(1) "A wolf is a mammal, and like all mammals, suckles its young, or it would not have an udder; that is what the udder is for. However, you are perfectly right in believing the mother wolf feeds her young by vomiting her food. She suckles the young without vomiting any food until they are between four and five weeks old. After that, she feeds them entirely by vomiting. We water our wolves in buckets, and until they are approximately three months old, that is, big enough to climb up and drink out of these buckets (which are hung high), they get their liquid supply from the mother. Although both male and female feed them by vomiting their food, after the pups are about six weeks old the male wolf does most of the feeding by vomiting. I would say as far as the feeding of the young is concerned, both methods are practiced."
(2) "I have stood around in various zoos waiting to observe the different varieties of wolves drink. We are very often asked the question at our wolf farm whether wolves lap water like a dog, or suck it like a horse. I think the way this idea got started is that they usually drink slightly different from a dog. They snap their water the same as we have often seen a hunting dog do when he is in a hurry, especially when heated. Sometimes wolves will lap water very much like a dog, but I have never seen one suck it, either among our wolves or those I have observed in zoos. The belief is widespread that wolves suck water. In many respects they are radically different from a dog."

* * *

### EARLY RABBIT BAG

Q. What was the bag limit for rabbits in 1915?

H.Y.

A. The bag limit for rabbits in 1915 was 10 per day, 30 per week, and 60 per season, and the season was Nov. 1 to Nov. 30.

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The height of indifference is the departing wiggle of a duck's tail when you try to feed it what you like instead of what it likes.

Respectfully dedicated to advertising men and salesmen who forget that what the customer wants is more important than what you think and what you want.

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Diner: What kind of pie is this—apple or peach?
Waitress: What does it taste like?
Diner: Glue.
Waitress: Then it's apple. The peach pie tastes like putty.

# HOW TO CARE FOR YOUR DOG

By EVAN C. STINEMAN

In replying to your letter of recent date, I readily agree with you that nature is and shall continue to be the most important element of whelping females. I doubt very much if dogs in their wild state were forced to go through the often avoidable difficulties that are so prevalent in the whelping brood bitches of this day. In looking back over the various cases of unnatural whelpings that have come to my attention, I find that in many cases the underlying causes could be laid at the door of man's erring judgment and could not be attributed to Mother Nature. The one dog man is not always the only one to err, since I have seen cases where the large kennel owner has put insurmountable obstacles in the way of Mother Nature in carrying out her duties of midwifery. Let me outline for you a simple program:

The most common deficiencies in the regular diet of a brood bitch can usually be overcome by giving milk, meal, eggs and cod liver oil. During the period the bitch is carrying she should be fed twice a day.

Next you should consider a proper place for your bitch to do her whelping. Start preparing these surroundings in plenty of time. The bitch should have at least two weeks in which to accustom herself to the place where she will birth her young. A wooden box with cover placed where it is out of drafts will serve admirably. Tack burlap sacking or other coarse material to the floor of the box. It is important that this material be tacked securely as the bitch will use this during the straining periods.

Under no conditions should the bitch be tied or restricted in her movements during or after she has whelped. This should be a rule that should be followed at least until the puppies are weaned. A runway can be constructed at a nominal figure to assure her of this freedom. Denying her this freedom may result in serious consequences for the mother and puppies since some matrons will not have bowel movements or void (urinate) in the immediate vicinity of their puppies and this may cause the mother to become sick and toxic.

The normal period of pregnancy is from 60 to 63 days, although it is possible to raise puppies dropped as early as 58 days and as late as 65 days. Ten to twelves hours prior to labor the bitch will often show some signs of uneasiness and usually refuse food. The normal period of labor is between two to eight hours. In case you find her in stress longer than eight hours a veterinarian should be consulted.

Your matron in the vast majority of times will clean up the puppies and eat the afterbirth. If it is possible to remove the membranes and dispose of them without causing too much nervousness on the part of the mother, it is advisable to do so. Should you find that the mother is not drying the puppies properly it is well to take a rough turkish towel and rub them briskly until they are dry. Your puppies should be carefully examined at this time and any that show deformities should be destroyed.

After the bitch has completed her whelping, a light feeding of warm milk, broth, soup or raw eggs beat up in milk should be given. The bedding in the whelping box should be changed at this time.

The most common ailment after whelping is eclampsia. This condition causes an extreme nervousness on the part of the mother and quite often convulsions. This usually occurs when the puppies are about two weeks of age and at a time when they seem to be tugging and nursing at the mother continuously. This condition is brought on by a deficiency of calcium and a veterinarian should be consulted.—Dr. H. B. Prothero.

# FOX HUNTING NOTES

By W. NEWBOLD ELY, M.F.H.

U. S. foxhunters have too long been accused of aping the English. The formal masculine members of our fields wear the topper (on which a special article will appear shortly), skin-tight boots unfitted for our rigorous clime, tabs, which persist on boots like appendices in our bodies, and so on and so forth.

Now we will have a chance to cut loose and contribute something to foxhunting ourselves.

This vista of the future was opened up by a letter from Mess Sergeant Granite Fundaments of the Motor Reconnaissance Corps recently transferred to a local Pennsylvania post of the B. P. O. E., from the Swiss Cavalry. The Sergeant claims that the logical change in foxhunting is coming from one of Henry Ford's mammoth plants — viz: the jeep, blitz-buggy, or reconnaissance car.

By the time of the post war period, everything must end eventually, even the Wars of the Roses, ended in 30 years, this form of economical foxhunting transportation (i. e. the jeep) will have flooded America, and for that matter, the world. Everywhere there will be thousands of jeeps, and having finally chased hell out of the Japs and the Nazis, etc., sportsmen can return to the pursuit of the fox. The Sergeant points out some of the jeep's obvious advantages and, on account of having been accused of too bucolic a leaning in last week's essay, we hasten to give this mechanized side to the sport of kings.

The jeeps will require no schooling, as yearlings or actually weeklings, they will be ready to follow hounds. They will be unaffected by higher grain and hay prices of the Agricultural Bloc. They will stand perfectly at checks, without fussing around. They are much faster than any blooded horse in the world, and they will not become cooked on a 10 mile, 20 mile or 50 mile point. They are more congenial. Since postilions went out of fashion, man and maid have no longer been able to travel on the same horse. Now, this coziness can be secured in perfect comfort in a jeep. In fact, it can be a double date.

Congenial quarters can dash after hounds, and have the additional saving of splitting the cost of their mount's upkeep four ways.

With the right take-off the jeep can take "any fence in any man's country", the Sergeant states.

Those valuing refreshments during the chase have ample room for a snug buffet behind the rear seat with duplex bar.

There are no annoying losses of shoes, as, even in the case of a blowout or puncture, a spare is always right there on the offside of the withers, we are speaking of after the war.

The saving on tack is obvious—a Sears, Roebuck Air Cushion, Catalogue No. 1776 B V D 999 Shift 13-13-13-1942, instead of $100 Whippy saddle, double bridle, blankets, coolers, etc.

So it seems logical that motor minded Americas contribution to the foxhunting of the future should be the perfect streamlined hunter—the jeep.

Limited space has confined us to merely touching on a few highlights of the Sergeant's exhaustive monograph, but we trust that the reader's imagination has been sufficiently stimulated so that he may carry on from here.

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"The easy roads are crowded
And the level roads are jammed;
The pleasant little rivers
With the drifting folks are crammed;

"But off yonder where it's rock,
Where you get a better view,
You will find the ranks are thinning
And the travelers there are few.

"Where the going's smooth and pleasant,
You will always find the throng,
For the many (More's the pity)
Seem to like to drift along;

"But the steps that call for courage
And the task that's hard to do,
In the end result in glory
For the never failing few."

—Edgar A. Guest.

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It is generally accepted that a fool and his money are soon parted, but how did the fool acquire the money in the first place?

# CURRENT TOPICS

March twenty-fourth, nineteen hundred and forty-two marked the passing, from this world he loved so dearly, of George Shiras, III. Though he was widely known as a Pittsburgh lawyer and Congressman he gained international fame as a wildlife photographer.

Many of his 83 years were actively devoted to photographing bird and animal life in many parts of our continent. For his efforts he received many coveted awards at expositions in this country and abroad. His specialty was photo flash pictures of the nocturnal activities of our wildlife.

Few people, who have not undertaken wildlife photography, can fully appreciate the patience, ingenuity and skill required to build up the splendid collection of photographs Mr. Shiras accumulated in his lifetime. Many pieces of equipment that he used in his work were of his own invention.

The National Geographic Society has published two splendid volumes of Mr. Shiras' work. Probably his best known photo is that of a doe and twin fawns, an excellent example of his accomplishments in night photography.

His interest in wildlife went far beyond his photographic interests and his desire to protect the wildlife he so loved to record on film was perhaps best demonstrated in his untiring efforts to establish the basis of our present migratory bird laws.

Though Mr. Shiras spent the last years of his life in Marquette, Michigan, he was a Pennsylvania conservationist, of whom we may all be rightfully proud.

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Mr. Howard J. Benchoff, Zullinger Pa., found the following animals dead along the highway in his section of the Commonwealth: Rabbits 69; cats 42; dogs 13; squirrels (red) 9; chickens 28; squirrels (gray) 1; skunk 24; opossum 11; guineas 3; turkey 1; quail (bobwhite) 3; quail (Hungarian) 1; grondhog 6; muskrats 13; and weasel 3.

## 12-POINT FOREST DEFENSE PROGRAM

At a meeting on March 6, the Georgetown Community Rod and Gun Club adopted a 12-Point Forest Defense Program submitted by Stanley Mesavage, Industrial Forester representing the Wyoming Valley Chamber of Commerce, Wilkes-Barre, as follows:

1. Assist in the immediate protection of the forests against incendiary and other man-caused fires.
2. Assist in the prevention of forest fires by patrolling the forest lands and safety stripping by burning certain fire hazardous areas.
3. Encourage the teaching of conservation education in the local schools by urging the School District to include it in the regular daily curriculum.
4. Foster the development of "memorial school forests" by encouraging the school children and teachers to plant trees on Arbor Day.
5. Promote the planting of mine refuse banks, surface strippings, and other idle lands.
6. Encourage the landscaping of the public schools.
7. Encourage the development of recreational projects.
8. Encourage the development of forests for wood production and watershed protection.
9. Foster the formation of a shade tree and park commission.
10. Promote the formation of a "conservation district" for mine water and flood control through soil and water conservation.
11. Sponsor the stocking of Mountain Lake with fish, the planting of acquatic plants in the lake for fish and game, and the liberation of game at the camp grounds and throughout the local woodlands.
12. Promote the cleaning up of rubbish-strewn fields, roadside dumps, and other ugly land scars.

The club also approved an educational program on forest conservation of the schools in that section.

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## ADVICE

When you're in the woods be careful,
Take no more game than you need.
Don't pick all the flowers,
Leave a few for seed.

Be careful, too, with fire,
Uncontrolled it's a dangerous thing.
Take time to enjoy nature,
And hear the song birds sing.

Feed the birds in the winter,
Give them protection, too.
Befriend the wild things around you,
And they will be friendly toward you.

—Robert H. Mitchell

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## MORTON HONORED

James N. Morton, Chief, Division of Land Management, was elected Chairman of the Allegheny Section of the Society of American Foresters at its meeting at Hagerstown, February 28. This Section includes professional foresters from the States of Pennsylvania, New Jersey, Maryland, Delaware, Virginia and West Virginia. Congratulations "Jimmy."

## FISHING AND HUNTING IN WAR TIME

**By FIORELLO H. LaGUARDIA**
**Former U. S. Director Civilian Defense**

WE ARE ENGAGED in what has come to be known as "total war," a type of warfare involving the entire resources of nations, physical and mental, pitted against each other. Our enemies are engaged not only in attempting to destroy our military forces and establishments, they are busy and will be busier trying to weaken and undermine the morale of our people. The Army and Navy have been fully mobilized; the Office of Civilian Defense is now concerned with the full mobilization of our vast army of civilians for "passive resistance" to enemy attacks.

In this new form of mobilization the physical fitness and alertness of the civil population are of primary importance. The virtues that go with civil defense—coolness, calmness, determination, and physical proficiency—receive encouragement through recreational outlets that are practiced in normal times; in fact, they have been stimulated and vitalized through a definite program of physical fitness which is an intrinsic part of the larger program of civilian defense.

The angler and hunter, finding momentary relaxation from their war-time duties in their own community, are continuing to exercise and develop the very qualities that make them most useful in a war-time emergency.

The quickness and resourcefulness in mastering a trout may be decisive factors in the control of a local defense problem or of a serious local situation.

Especially is this true of the hunter and marksman. The War Department has long recognized the value of encouraging civilian marksmanship.

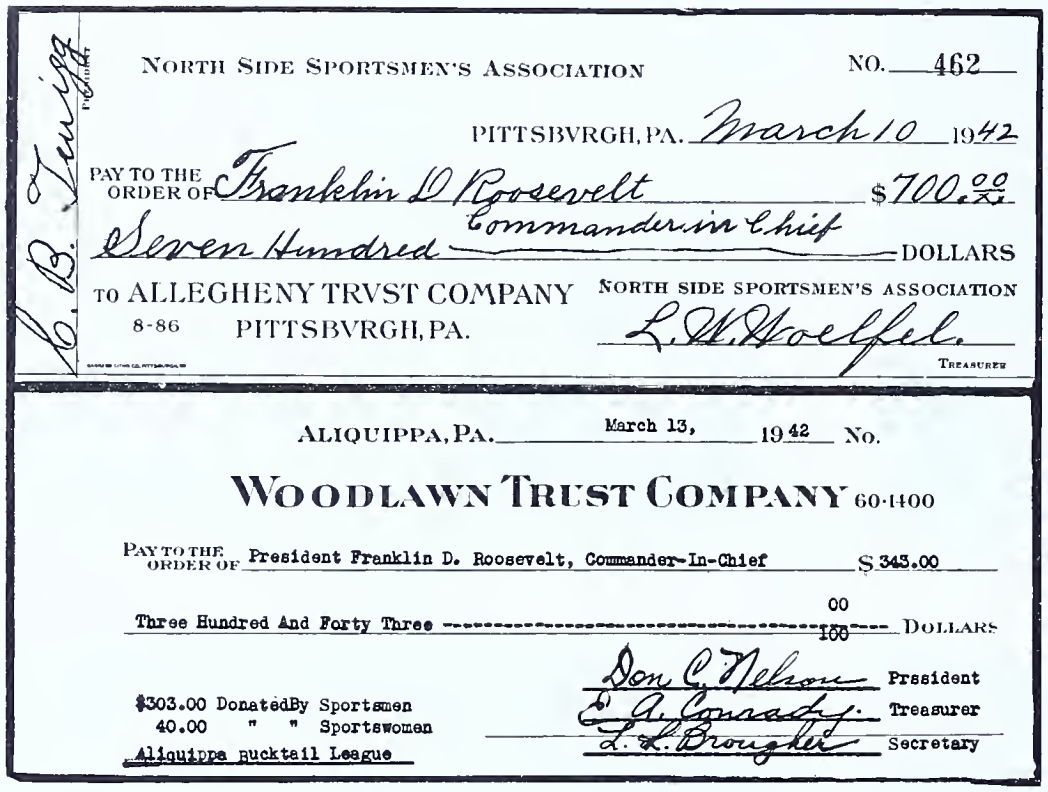
Until this year, when equipment was no longer available, the Department's Director of Civilian Marksmanship promoted rifle shooting throughout the United States through the National Rifle Association. The Physical Fitness Division of the Office of Civilian Defense has inherited and is carrying on the work in that field initiated by the War Department. In Philadelphia the Division offers instruction in rifle practice and through the National Rifle Association various gun clubs are cooperating in the instruction of civilians in the proper use of firearms.

While the danger of actual invasion may not be immediate, it is well for us to be prepared against any eventuality. It is well known that British sportsmen have comprised the nucleus of anti-parachutist groups throughout the beleaguered Isles, and their value to the military has been fully demonstrated. Similar groups have been organized in this country and are being trained for defensive work. It is expected that the idea will spread to every section of the nation, thus forming a network of practical civilian defense against possible air-borne invaders.

Requests for information on this phase of civilian defense should be addressed to John B. Kelly, Director of Physical Fitness, Office of Civilian Defense, 320 Board of Education Building, Philadelphia, Pa.—March, 1942, Hunting and Fishing.

**Lumbering operations on State Game Lands No. 66, Sullivan County, where mature maple, yellow birch and a few other tree species are being cut. The cutting is being done at the rate of approximately 100,000 bd. ft. per month under the supervision of Land Management Game Protector E. W. Carpenter. The operation will result in considerable revenue for the game fund and in an improved habitat for forest wildlife in that section.**

# CURRENT TOPICS


NORTH SIDE SPORTSMEN'S ASSOCIATION NO. 462

PITTSBURGH, PA. March 10 1942

PAY TO THE ORDER OF Franklin D Roosevelt Commander in Chief $700.00

Seven Hundred DOLLARS

TO ALLEGHENY TRUST COMPANY PITTSBURGH, PA. 8-86

NORTH SIDE SPORTSMEN'S ASSOCIATION L. W. Woelfel. TREASURER

ALIQUIPPA, PA. March 13, 1942 No.

WOODLAWN TRUST COMPANY 60-1400

PAY TO THE ORDER OF President Franklin D. Roosevelt, Commander-In-Chief $343.00

Three Hundred And Forty Three 00/100 DOLLARS

Don C. Nelson President

E. A. Conrady Treasurer

L. L. Brougher Secretary

$303.00 Donated By Sportsmen
40.00 " " Sportswomen
Aliquippa Bucktail League

Courtesy Pittsburgh Press

**Sportsmen Do Their Part—Typical of the cooperation being given by the sportsmen's organizations to the war effort of the United States are these checks, from the North Side Sportsmen's Association and the Aliquippa, Pa., Bucktails. They were made possible by individual contributions of a dollar or more and given to the Federal Government as outright donations, the donors asking no return except the satisfaction of knowing they are playing a part in defeating the Axis powers. Such efforts toward national defense are most commendable.**

## SURPLUS GAME NEWS FOR SOLDIERS

Mark Motter, Game Protector of Dauphin County, set a good example the other day by sending surplus copies of his GAME NEWS to Headquarters Detachment, 1st Squadron, 104th Cavalry, located at Indiantown Gap. Staff Sergeant Christian S. Hean in acknowledging the good will gesteur said, "To those of us who appreciate wildlife, they give a chance to keep abreast of it. I'd like to suggest that the practice be carried out all over the State, both by Game Protectors and sportsmen who have back editions."

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The sportsmen of western Pennsylvania and all other sportsmen of Pennsylvania who wish to contribute are being given the opportunity to avenge some of the destruction caused at Pearl Harbor by contributing $1.00, or more, to the Sportsmen's Aerial Defense League.

This is a chance for the hunters, fishermen, bait and fly casters, trap and skeet, pistol and rifle shooters to rally behind the Army and Navy and do their bit by providing funds to help avenge the destrucion of life and property.

Only checks or U. S. Postal money orders, made out to Franklin D. Roosevelt, Commander-in-Chief, will be accepted. Forward these to the Sportsmen's Aerial Defense League, Pittsburgh Press, Pittsburgh.

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**LOST:** Two male liver and white pointers both heavily ticked. Any information concerning the whereabouts of these dogs should be sent to Ernest Kohr, R. D. No. 3, Lebanon, Pa.

Sportsmen everywhere, but particularly those in Cumberland and adjoining Counties, are invited to attend the third annual field day of the Carlisle Fish and Game Association held on its club grounds opposite the Carlisle Country Club, July 18. Events will include trap, skeet, pistol, rifle, revolver shooting; darts, archery, mo-skeet; and fishing for accuracy and distance.

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Asa B. Quimby of Oswayo proudly displayed the head of a buck deer which he killed this season. Quimby, who is 81 years old, and has in his lifetime shot a lot of deer, states this was not only the largest buck he ever bagged, but it was the largest one he ever saw. It weighed 215 pounds dressed.

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A live animal exhibit was the main attraction at a recent Sportsmen's Show held at Easton. Several thousand persons viewed the exhibit, as well as many other interesting displays, during the event.

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We have a very interesting letter from Arthur Block, who owns a farm in Bucks County, to the effect that he planted 30 acres to game food last year—20 acres were in soy beans which were not harvested, and 10 acres were in Pennsylvania Game Food Plot Mixture. He said that pheasants, particularly, took advantage of this excellent food supply throughout the entire winter.

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Sweet Young Thing: "Isn't it wonderful how you filling station people know just where to set up your pumps to get the gas?"

## THE NAZI DEADLINE

MEN who know how to properly handle guns have offered their services by thousands all over America. Why have their proffered services been overlooked while so much interest is taken in registering privately owned guns? Confronted with the question "What are you going to do with these guns after they are registered?" the local Defense Council has no answer. **Someone** suggested the firearms registration as being "a good idea".

The persistence exhibited by some sheriffs and chiefs of police in warning citizens to register their guns "for defense" suggests that the same "someones" who have been regularly defeated in their attempts to secure legislation **legalizing** the registration of firearms are now trying to be smart and to **illegally** frighten people into gun registration under the guise of "civilian defense".

**There is no law requiring the registration of privately owned firearms for civilian defense!**

With the lists of voluntarily registered guns they hope to obtain, these "someones" can go before their legislatures and city councils and present an alarmist's picture of hundreds of guns listed by the "good" citizens and demand registration of the remaining guns. Citizens who have refused to register their guns with the sheriff for "defense" purposes can be pointed out as a dangerous element within the community with some ulterior motive in their failure to register.

The only **practical** use for such "defense" registration lists will be to make available to Fifth Column groups information as to where **they** can acquire additional arms and what homes they should descend on **first** when outbreaks of local violence are called for by the enemy plan!

From Berlin on January 6th the German official radio broadcast—"The German military commander for Belgium and Northern France announced yesterday that the population would be given a last opportunity to surrender firearms without penalty up to January 20th and after that date anyone found in possession of arms would be executed."

So the Nazi invaders set a deadline similar to that announced months ago in Czecho-Slovakia, in Poland, in Norway, in Roumania, in Yugo-Slavia, in Greece.

How often have we read the familiar dispatches "Gestapo agents accompanied by Nazi troopers swooped down on shops and homes and confiscated all privately-owned firearms!"

What an aid and comfort to the invaders and their Fifth Column cohorts have been the convenient registration lists of privately owned firearms—lists readily available for the copying or stealing at the Town Hall in most European cities.

What a constant worry and danger to the Hun and his Quislings have been the privately owned firearms in the homes of those few citizens who have "neglected" to register their guns!

Yet, despite this published record there are, today, American defense councils trying to compile lists of privately owned firearms

An interesting report of the activities of the Lititz Sportsmen's Association was submitted by its secretary, Mr. Abram Hershey and covered in detail the progressiveness of the club during its eight years of organization.

Founded and maintained on an active basis the club has, in addition to participating in a heavy fish and game stocking program, constructed nearly one hundred feeding shelters and distributed 38½ tons of game food, grain and ear corn.

The Lititz sportsmen own and operate their own trap grounds, hold an annual Ox roast which is free to its members, and donate many prizes at their Annual Farm Show. They established a 517 acre wildlife project, the first of its kind in Lancaster County.

That their interests are far from selfish is demonstrated by the club's erection of a drinking fountain in the Lititz Public Park, and the recent purchase of $500.00 worth of Defense Bonds, a most worthy investment.

A member of the County and State Federation, the club has maintained an active educational program and points with pride to the fact it was the first club in the county to appoint a committee to give conservation talks in the public schools. Hats off to the Lititz Club!

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Each year sees added a number of new refuges to those administered by the Fish and Wildlife Service. Scattered all over Continental United States we find 251 refuges with a total area of 9,531,790 acres. Sixteen others are located in Alaska, Hawaii and Puerto Rico. These have an area of 4,094,232 acres.

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Income taxes could be a lot worse. Suppose we had to pay on what we think we're worth.

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The foundation of every successful business is confidence cemented with friendship.

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in their communities! For what purpose? Surely no defense official is so naive as to believe that in an emergency, with lives hanging in the balance, a gun can be issued to any civilian defense worker who happens along! The only person who can be trusted to handle a gun safely in an emergency is a person who has learned to subconsciously handle that gun safely through practice when no emergency existed.

No more sincerely patriotic group exists in America than the people composing the Defense Councils—though it must be remembered they have no protection from the enrollment of Fifth Column elements. BUT they are gun-shy amateurs at defense and their well-intentioned activities in **attempting registration of privately owned firearms is the most dangerous blow to national defense that could be taken* Our own Defense Councils are taking the first step to help establish that old-familiar Nazi Deadline—"all guns must be surrendered under penalty of death."**

Sportsmen! Educate your local Defense Councils to utilize the services of trained shooters but to avoid the dangers of firearms registration!—C. B. Lister, Sec.-Treas. National Rifle Association.—Reprinted from The American Rifleman, February, 1942.

# RECORD HEADS

Neat trophy bagged by L. E. Brown, Orwin.

In response to our request for records of big game animals set forth on page 32 of the December issue we have received the following:

Measurements:
Length on outside curve ..... 17⅛"
Circumference of main beam ..... 3½"
Circumference of burr ..... 5"
Greatest spread ..... 17½"
Number of Points on each horn: Right 5, Left 5
Exact locality where killed, Elk County, near Grant Road.
Date killed, December 1, 1941.
By whom killed, George Yeager.
Address, R. 1, Pitcairn.
Remarks: This deer was one of the largest I have seen in that section.

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In response to our request for records of big game animals set forth on page 32 of the December issue we have received the following from Roy A. McCully, Wilkinsburg, Pa.

Measurements:
Length on outside curve ..... 22½"
Circumference of main beam ..... 4"
Circumference of burr ..... 5"
Greatest spread ..... 19"
Number of Points on each horn: Right 4, Left 4
Exact locality where killed: Pike Township, Potter County.
Date killed, 1938.
Remarks: Two points closest to burr were broken off and the deer had a V cut in right ear. Lifelong residents of Potter County claim it was a stock deer.

Measurements:
Length on outside curve ..... 24"
Circumference of main beam ..... 4¾"
Circumference of burr ..... 6¾"
Greatest spread ..... 25½"
Number of points on each horn: Right 8, Left 7
Exact locality where killed: Tremont Township.
Date killed: December 3, 1941.
By whom killed: Lewis Earl Brown.
Owner: Lewis Earl Brown.
Address: Orwin, Pa.
Remarks: Horns perfect.

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In response to our request for records of big game animals set forth on page 32 of the December issue we have received the following:

Measurements:
Length on outside curve ....R. 23¼" L.22¾"
Circumference of main beam ..... 22½"
Circumference of brain at burr..... 5¾"
Greatest Spread ..... 22¼"
Spread between points ..... 17"
Number of points on each horn: Right 6, Left 7
Exact locality where killed: Adams County, near big dam on Conococheaque Creek, 1½ miles north of Caledonia Park, directly east of dam, near top of mountain.
Date killed: November 22, 1904.
By whom killed: F. Mark Bream, 202 Carlisle St., Gettysburg.
Remarks: Can be seen mounted at my home, 202 Carlisle St., Gettysburg, Adams County. Odd point on left antler, 2¾" long. A perfect head of the famous "Big Deer," or "Harsh Buck," of Pennsylvania; 208 lbs. hog dressed.
Species: White-tailed Deer.

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Measurements:
Length on outside curve A ..... 27½"
Circumference of main beam B ..... 5⅛"
Circumference on burr C ..... 7⅜"
Greatset spread D ..... 23¼"
Number of Points on each horn: Right 10, Left 5
Exact locality where killed, Lower Tyrone Township, Fayette County.
Date killed, December 6, 1941.
By whom killed, Clarence Keffer.
Owner, Clarence Keffer.
Address, Dawson, Pa.
Remarks: Longest tern, 11½"; 207 lbs. hog dressed; 27" around neck; 44" around chest.

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Conservationists claim there are more deer in the United States today than there were when the early settlers arrived. It is believed that when America was a wilderness the forests were too thick to permit the animals to find sufficient forage. When clearings were made the deer herds increased.—Proof: Outdoors, December 1940.

The largest member of the deer family is the Bull Moose of Canada, known as Alces gigas. Sometimes these bulls grow to a weight of more than 1400 lbs.—Proof: Outdoors, May, 1940.

The sturgeon is 25 years old before it spawns.—Proof: Sports Afield, November, 1941. Submitted by Joe Zieminski, (age 16 years), 521 West Green Street, West Hazleton, Pa.

# CONSERVATION AND THE WAR

*Continued from Page 5*

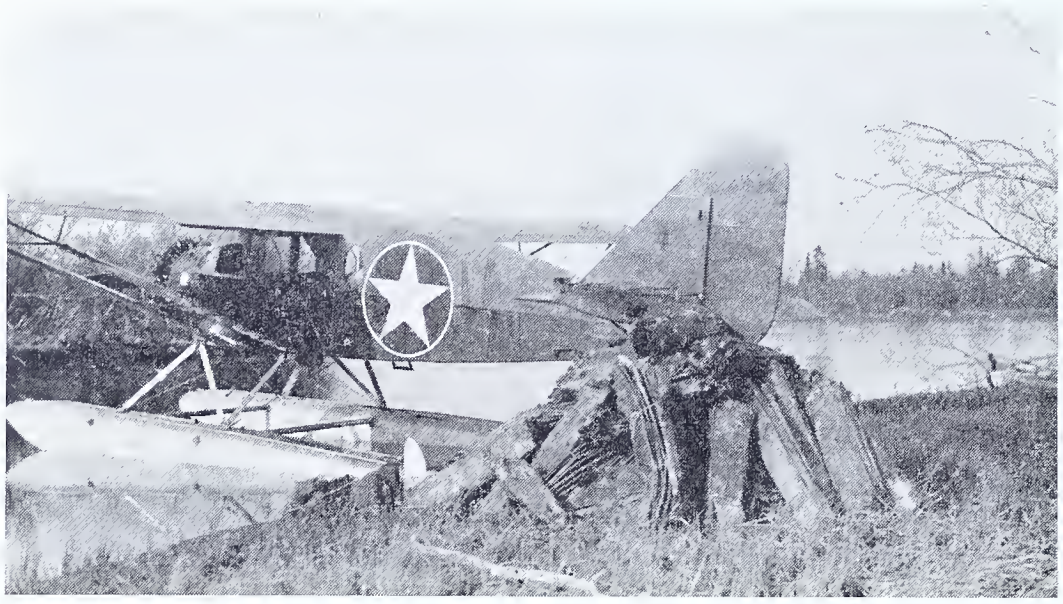

Photo U. S. Fish and Wildlife Service

**Flying Game Wardens spot violators as well as Fifth Columnists.**

couraging things which I am sure will be of interest to you: Throughout the National game refuges Mississippi Valley and the far west—and this is true of most of the eastern refuges as well—the water table is up, and refuges which a few years ago were considered valueless and ready for abandonment are now filled with water. Examples of this are Arrow Rock Waterfowl Refuge in North Dakota and the Sand Lakes Refuges in South Dakota.

While we have many military camps of one type or another, they are too small to do any harm to wildlife except in their immediate vicinity. This is especially true since the larger species of game moves swiftly out as man moves in.

Rodent and predatory animal control is highly essential in the vicinity of all of our military camps and other large aggregations of people engaged in defense activities. Strychnine is a poison which has been used extensively in this work. It comes from India, Malaya and other sub-tropical areas, and has not been satisfactorily grown in any other than tropical climates. Therefore, there is going to be a decided shortage in this material for predatory control. However, it is interesting to know that only 9% of the animals taken through control methods are poisoned. The other 91% are taken by trapping, den hunting and other means.

Red squill, known to the technical man as "raticide", used in the control of rats, comes from the shores of the Mediterranean Sea. This supply has been completely cut off. Recently experiments have been made in growing red squill in Arizona, southern California and New Mexico. The bulbs from these red squill plants are of a higher value than those which come from the Mediterranean, therefore we need not be concerned about our future supply.

It is not generally known, but there has been in the West, largely confined to California, an outbreak, slight in character however, of bubonic plague. Ground squirrels seem to be the carrier of this disease in our country; at least they are far more prevalent in doing so than other rodents. Cantonments, bombing ranges and other military camps in many instances are placed away from other concentration of populations, many of them being located in the sage brush country where ground squirrels are found under every bush. The Fish and Wildlife Service, the Public Health Department of California and the United States, and the Army are cooperating in controlling this dreaded infestation.

During an emergency of this kind there is bound to be, from time to time, a duplication of service and effort in our Government departments. The important thing is that as these are found they should be ironed out and the services of those agencies set up by the Government for a particular purpose should be utilized. For instance, the old OPM, now known as the "War Production Board", realizing that furs for the Army, Navy and Air forces of our war-time effort were essential, set up a fur research division. Immediately the Fish and Wildlife Service pointed out that it had within its organization a division of fur research, which had on hand, gathered through many years, all of the information which was needed. Here is one instance of duplication being ironed out and done away with.

There is vital need for leather for shoes, gloves, jackets and many other needs of the defense branches of our Government. Pressure is being brought upon State game departments to permit the sale of deer, elk and other game animal hides to increase the leather supply during the emergency. Through a proper tagging and licensing system on the part of the state game departments this might accomplish some good.

At the present moment throughout practically all of the West, and in many other sections of the country, there is a substantial surplus of deer, elk and other game species, which could be used for food in case of necessity and under proper restrictions. I do not want this statement to be misunderstood. I am not in favor of the wholesale killing of our wildlife to meet any alleged shortage in our civilian meat supply, yet if wildlife is a potential source of emergency supply it may some day have to be seriously considered.

In the matter of food supplies, fish also enters largely into the picture. I speak now of the commercial fish. The Government commandeered 50% of the salmon pack of last year. The great bulk of this salmon comes from Alaskan waters. Canneries which operate there have their own ocean-going vessels. Many of these vessels have been taken over by the Government, and a real problem of transporting cannery crews, fishermen and

Photo C. G. Fairchild

**Marsh Fires—A symbol of possible wartime destruction to wildlife.**

supplies for the Alaska canneries has been presented. How this will be worked out has not been concluded. However, it is probable that canneries will have to pool their interests and utilize a few boats instead of many which it is feared will have a tendency to cut down materially on the pack.

Game protectors, particularly those of the Federal Government, have been trained in FBI methods. These men, as well as many state men under Civil Service, make a fine corollary of usefulness to the work of Hoover and his men. There are many hundreds of these game protectors scattered throughout the country. They know their particular location like a book and are able to render valuable assistance to the Secret Service arm of the Government.

We have heard much in recent weeks about moving the Fish and Wildlife Service from Washington to Chicago. The order for its removal was scarcely dry on the printed pages of the newspapers of this country when sportsmen, simultaneously and voluntarily, arose in a mighty protest against the move. For the moment it is pigeon-holed. It may be pulled out at any time, but it would seem that the Fish and Wildlife Service,,which is so intimately linked with so many other activities of the defense effort, would be permitted to remain in Washington. Albert L. Day, head of the Pittman-Robertson activities has been designated as assistant chief in charge of liasion activities between the Federal and State agencies directing the war effort. His work has been well done and he is to be commended for the excellent manner in which he has co-ordinated and ironed out many very perplexing problems which arose. Under the Pittman-Robertson Act, for instance, there was some thirty-five hundred acres of land located near Corvallis, Oregon, on which the Government decided to erect a cantonment. This land was an experimental area where certain phases of wildlife were being studied. The status of the study was changed and here in one great concentration, and over many more acres than the thirty-five hundred mentioned, an intensive study is being made of the effect of the war effort on wildlife.

In spite of the fact that during the war emergency the pollution problem will be increased, it is interesting to note that the Army recognizes this problem, and that it has appointed one of the outstanding Government experts on pollution to study the effects of war industry on pollution. Doctor Ellis of Missouri has been taken over by the War Department, and he is to devote his time during the emergency to studying this problem, analyzing its effects, and pointing out, where possible, a remedy or, if not a remedy, a method of minimizing its effects.

Photo U. S. Fish and Wildlife Service

**Predators reduce our supply of food and clothing.**

Did you ever stop to think that not only in the Federal Fish and Wildlife Service but in the service of nearly every state, there are well trained men in administration and organizations who are extremely capable of handling men and equipment? The majority of these men have had ten or more years of experience; many of them have had over twenty. In this great effort which we are putting forth now to preserve our Country, these men can be of inestimable help to the Government.

An interesting side-light on conservation and the war is the matter of rabbit propagation for food supply and fur. Rabbit progagation goes well in most of our northern states but has been unsatisfactory in our southern states. A technically trained man one day said to himself: "Why not build our rabbit hutches underground where at a certain distance below the surface we find an even tempearture", and so today, believe it or not, our rabbit hutches in the South are being built in underground caves and rabbits are being satisfactorily propagated there.

Today, 342 wildlife restoration projects are active under the Pittman-Robertson Act in forty-six of our states, and in Alaska, Puerto Rico and the Virgin Islands. Since the Pittman-Robertson program was launched 657 projects have been approved and nearly half of them have been completed. During this time state game departments have acquired more than 250,000 acres of land for wildlife restoration purposes.

Sportsmen must be on the alert. A studied effort will be made to divert revenues from state game departments to other activities. In the Federal Government an effort will be made to curtail the activities of the Fish and Wildlife Service and conservation agencies by slashing appropriations. Consequently all conservation departments should be on their toes constantly to forestall any such efforts, and should the efforts be made strong, an active opposition should be instituted.

When the war is over the millions who will be released to civilian service and enterprise must have their opportunity to pursue their heritage in the wildlife of our Country. Let's challenge any effort to subvert it to other channels than those for which we have fought so long and so hard to achieve.

## The 1940-41 Game Trapping Program

(Continued from Page 8)

Boy Scouts and a youth group composed of high school students trapped 1,609 rabbits in the seven game Divisions for which they received a total of $566.15.

| Division | No. Rabbits | Amount |
|---|---|---|
| "A" ..... | 61 | $ 21.35 |
| "B" ..... | 243 | 85.05 |
| "C" ..... | 328 | 117.80 |
| "D" ..... | 29 | 10.15 |
| "E" ..... | 331 | 115.85 |
| "F" ..... | 514 | 179.90 |
| "G" ..... | 103 | 36.05 |
| Total ..... | 1,609 | $566.15* |

*1,579 of these rabbits were paid for at the rate of 35c each and 30 rabbits were paid for at the rate of 45c each, because one Boy Scout Troop built their own traps.

The cost of operation included salaries, wages, traveling expenses, material and supplies, and payment for all game trapped amounted to $17,408.33. The total cost of materials and supplies necessary to construct 4,037 rabbit traps was $2,061.95, or an average of .517c per trap.

The cost of the materials and supplies necessary to construct 424 rabbit carrying crates was $487.56 or an average of $1.15 per crate; that for constructing 100 pheasant and 100 quail traps was $315.40 or an average of $1.577 per trap. Due to the need for various kinds of materials for traps and crates the cost was higher than in previous years.

It has been the practice to take one-fifth of the cost of the rabbit trapping equipment for each of the past few years since the NYA started to build this equipment and add to these costs one-fifth of the cost of the current year's equipment, plus the other rabbit trapping expenses for the current year. The total cost of rabbit trapping for the 1940-41 fiscal year, therefore, was $15,365.80, which boiled down means that 32,799 rabbits were trapped during the year at an average cost per head of .468c.

The average cost of trapping rabbits is on the decrease because a great deal of trapping equipment has been acquired and it was not necessary to build so many additional traps and crates the past year.

# OLD GRAT

*Continued from Page 7*

then rolling forward his body muscles in typical canine fashion, terminating all with a wide yawn and a sleepy glance at his master.

Manda walked ahead of Old Grat and Mange, up the dilapidated, creaky stairs. She whispered, "I don't see why you don't throw those drunken parasites out on their ears, Grat."

He said nothing.

"Sportsmen! It makes my ears burn to hear rats like them call themselves sportsmen. If I was a man . . ."

"Come on to bed, Manda, and shut up," said Old Grat.

The two Srangers sat long by the fire, pouring more liquid fire into their pickled, calcined stomachs. After the clunk of shoes and rattling of bed springs, which attended the last moves of Old Grat and spouse and Mange for at least six hours, a deep silence settled over the house. The silence did not please the Strangers, for be it known that merriment was their wont while indulging in the Cup that Cheers.

"Let's go hunting," said the First Stranger.

"For what?"

"Deer, whadd'ye think?"

And by strange coincidence, a series of snorts emanated from the immediate environs of the house.

"Listen. Hear that?"

"What is it, a horse?"

"Aw g'wan. That's a deer."

"Deer? I thought they blew like horns."

"Them's mice you're thinking of."

"Mice!"

"Sure. I mean more than one moose, idiot."

"Oh. Well, let's get the rifles."

The Strangers gathered their rifles from the heap of paraphernalia which had been tossed carelessly into a corner. As they went outside, the First Stranger said, "I borrowed this gun and I ain't sure how to put shells in it."

"Oh heck. Give it here a minute."

The Second Stranger grabbed the rifle. After some fumbling about in the darkness, with only a flashlight and Old Grat's lantern (carried by the First Stranger) for light, the hammer flew forward on the rifle. The muzzle was pointed directly at the First Stranger's head. A loud click was the only result.

"It wasnt loaded," said the Second Stranger.

"No. I tried to yesterday but didn't get far."

From Old Grat's orchard, a deer snorted again.

"Hurry up with my rifle."

"It's loaded now."

"Let's get that deer, then."

They stumbled down through the orchard. It was a dark, moonless night; the lantern threw a patch of yellow light in the darkness. The Second Stranger played the flash-light about on the trees. The trees stood still and grey, like ghosts.

Finally the light flashed on a pair of sparkling green eyes.

"A deer!"

"Yeah. Now you hold the lantern and the flashlight, and I'll—"

He never completed the sentence. There was a loud crash; the lantern split into a thousand fragments; the loud report of a rifle came from the brush. The scare caused the First Stranger to drop the flashlight. The deer crashed past them, headed for the forest.

"Some Crazy fool shot out our lantern!" cried the Second Stranger.

A bullet sang high above their heads. The rifle cracked again.

"Hey-y-y-" moaned the Second Stranger.

"Let's - get - out - of - here -"

They began to run. They fell over each other in the darkness, fell into a ditch, crashed into trees. At last they reached the house.

"No - more - hunting - for - me," said the First Stranger.

"Let's get to bed."

"Yeah. Only first, wait; I need a nerve tonic."

"I wonder," said the Second Stranger, "if there is such a thing as ghosts."

Late the next morning the two strangers stuffed their belongings into the car. They paid off their board and bid good-bye.

"Next time I have a couple of days off, it's the shore for me," said the First Stranger.

"Me too," his partner agreed.

Old Grat sat on his favorite rocker on the front porch, oblivious to all save his sleep and contentment. His eyes were tight closed. His hands were folded on his paunch. Flies buzzed lazily about his head, droning to their heart's content without a hint of annoyance from him. At his feet, Mange was curled. And Mange, too, was asleep.

"No more of the woods for me," said the First Stranger.

"Nor for me," said his companion.

And after the two men had climbed into the car and the motor had turned over, Old Grat carefully opened one eye. Mange followed suit, peeking up at his master. Old Grat winked slyly at the dog, and a slight smile crept into his face. Then both man and dog closed their eyes again as the car pulled out.

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"I notice an article in your December, 1941 issue "Don't Do It" by Captain Dillin. My late brother was with Capt. Dillin on that hunting trip when Simpson was shot. Simpson lived near us. My brother Charley helped carry Simpson from the bush. It was a sad affair.

"Dillin should be complimented on his article. He was the first to introduce the wearing of red when hunting in north country. Capt. Dillin is a wonderful shot. He made several trips up in Canadian north woods and always got his deer and moose.

"The boys always wear red now. It sure is a lifesaver when hunting big game in north country and Dillin was the first to advocate it in Ontario."—F. D. White, Aylmer, Ontario.

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Conservation—guard well your speech, for words can get you into trouble more quickly than anything else. That is the reason it always pays to think before you talk. That man faces a lot of danger who throws his tongue into high gear before he gets his brain going.

Members of the Johnstown Sportsmen's Clubs who are in the military service will have their memberships renewed free for the duration, according to a resolution passed by the organization at its recent meeting.

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"The fact that Deputy Game Protector Dan W. Weigel of Elizabeth, Allegheny County, Dis. G-11, was inducted into the Army in October of 1941 has not lessened his interest in wildlife and related fields while traveling with Uncle Sam. In Virginia he visited a quail and turkey farm. At present he is in Texas and has visited a display of mounted deer heads, a State Fish Hatchery and a Farm-Game Project. He has secured a copy of the Game Laws of Texas and enjoys comparing them with those of Pennsylvania. The Jack Rabbits and Blue Quail are a treat to see, but he is anxious for the wooded hills of the Keystone State again, he states."—Robert D. Parlaman, District Game Protector, Westmoreland County.

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A wise man is like a straight pin; his head keeps him from going too far . . .

"The other day while patrolling Farm Game project No. 79, York County, I stopped on a hill to watch two hunters and a pointer. They were just starting through a half acre patch of Pennsylvania Game Food and Cover Plot Mixture, which by the way is one of the nicest I've ever seen. They put out seven hens one at a time, and then two cocks. They managed to get one cock. Three more hens raised as they reached the lower end. They next went to a cornfield a hundred yards away located right beside a refuge about the same size. Not a bird raised out of the standing corn and they started up the hill towards me. I stopped them, and they asked me about the food mixture. I told them that the Game Commission had planted it and many more. Also, that many individuals were planting similar plots. They both said that next spring they would get some seed and have some farmer friends plant it, because there were more birds in that food patch than they had seen all day."—Game Protector A. C. Ganster, York County.

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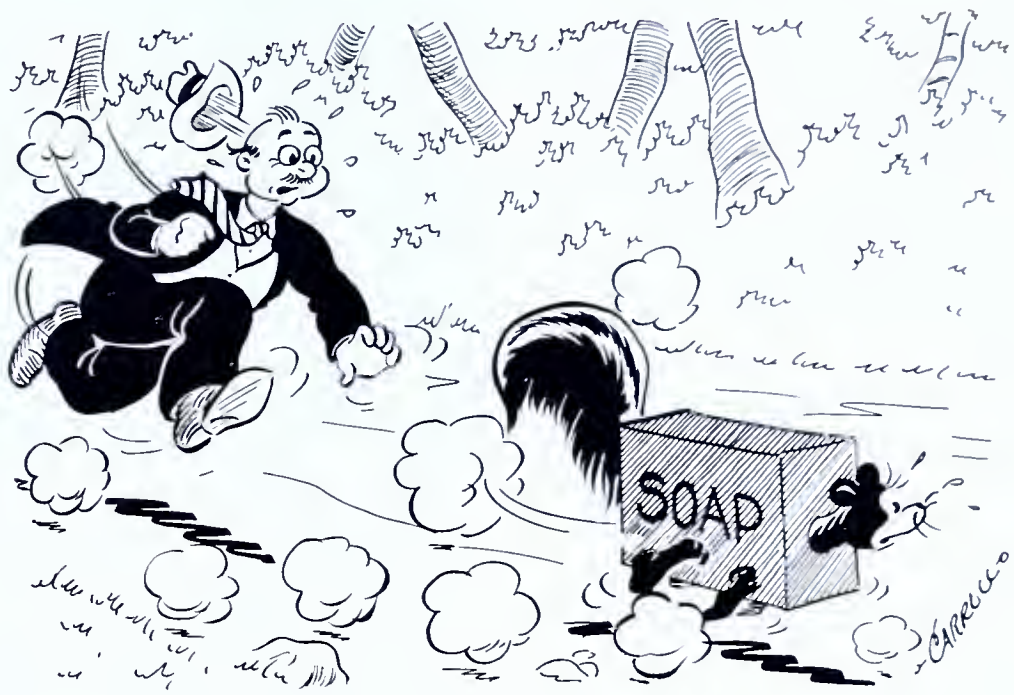
Many a man has made a monkey out of himself by reaching for the wrong limb!

# "The Skunk's Been Drafted"




MANUFACTURING companies of soap and soap powders are now being faced with the possibilities of curtailing their shipments of these articles and the fact now comes to light that all sources of fats and tallow which are used in the making of soap must be closely guarded, and also any other possible source of such material must be exploited and developed.

Our almost complete loss of foreign imports of fats and oils is going to force us to hunt for our own materials. Housewives in the Chicago area are already being called upon to save all their fryings and fats, and turn them into their food stores weekly.

With the help of various Defense Councils, this movement will spread nation-wide. It was done in Germany years ago. It is not generally known that 90% of the glycerin produced in America comes as a by-product of soap-making from the fats and tallow of slaughtered animals.

Our government is considering methods of forcing all soap manufacturers to either reclaim all possible glycerin in the manufacture of soap and soap powders, or discontinue manufacturing soap.

Stories are heard of the shortage of soap in Germany, and the ravages of typhus which is spread by lice. This, of course, is directly due to the unclean clothes and bodies of the soldiers. Many diseases usually follow in the absence of abundant cleaning materials. A Swiss Rotary Club entertained and cared for a group of poorly nourished French children, pitiful results of the war. They were so thrilled with their individual cakes of soap they were given that they asked permission to take them home to their mothers. It certainly will be to our advantage to protect, increase, and encourage all possible supplies of our fats and oils.

This is where the skunk enters the picture. Beneath his hide is a thick layer of grease. Unlike any other animal in the woods, (except the 'coon perhaps), his weight is one-third pure fat. This is the material we will need so urgently in the future. It would be wise, the next time we meet Mr. Skunk along the road, to think of him in terms of a dozen cakes of soap or a big box of soap powder, running away from us.

Most of us think of his fur. Let's forget the fur, and think of the valuable oil and glycerin he carries with him. One skunk carcass will produce more grease than any ten families could save in two weeks from their kitchen. No longer should Mr. Skunk be valued for his fur. The fur is useless in war work.

A farm boy catches a skunk, skins it, keeps the fur, and throws the carcass into the woods. Think of it! Enough grease in that carcass to produce soaps for his family for a week or two, and he throws it away!

The best way of reclaiming these carcasses would be to have the trappers deliver the whole carcass to the dealer. This way the dealer could reclaim all the fleshing on the hide as well as the carcass, and the fat would be in better condition. If carcasses become too old, the fat gets a high acid content, which causes the glycerin to be lost in the process of soap manufacturing. The oil, however, is still there.

There isn't much the dealer could pay for the plain carcasses, as it is a long, costly process between the raw carcass and the finished soap or cleansing product. Nevertheless, we dare not think in terms of dollars and cents, but of the fact that the oil supply must be increased and nothing wasted.

Every trapper should turn his carcasses into his dealer, regardless of what he receives for them. It is his duty as an American to save and not to waste. Motorists, who needlessly kill skunks, should be made to realize the grave error they have committed.

The average fur dealer undoubtedly could collect five to eight thousand pounds of grease in a season. Multiply this by all the dealers in the state, and you will begin to conceive the great amounts of grease, carloads of it, and hundreds of pounds of glycerin, which heretofore has been merely thrown aside.

The fur dealers, whether they like it or not, should be duty-bound to cooperate with the U. S. Government in this vital project of saving waste material. Not only the fur dealers, but the trappers, the good old American public, and the rendering plants all must work together to save for the future. Let's look ahead!—Louis S. Winner, President, Clinton County Fish and Game Association.

# Want Pheasants? . . . Keep Them Fed!

*Continued from Page 9*

tion on what can be done to furnish ringnecks with better environment.

For both food and cover, fields of standing, handpicked corn are the best. If the farmer really is interested in attracting and keeping birds on his farm, he can leave a few rows of standing corn near other cover, or in such a position that it forms a corner covert in the field. Some sportsmen's clubs have adopted the practice of paying a farmer for a few rows of corn which stand near permanent cover. Under such circumstances the farmer agrees to let this corn stand, unpicked, and, more important, agrees not to pasture the field. Pastured fields become less attractive to pheasants as the winter progresses. It is suggested that if more sportsmen made such arrangements with farmers there would be less expenditures needed for winter feeding.

Another feasible plan is the planting of food plots of one-quarter to one-half acre near good permanent cover which is utilized by the birds. This will help the pheasants over the difficult fall and winter months. The Pennsylvania Game Commission has prepared a food plot mixture that has proved fairly successful (Morton, 1940).

Even though a sincere effort has been made to provide available food for pheasants, sometimes severe weather makes winter feeding necessary. Winter feeding is usually needed most in February and March when the available supply of food has become exhausted. Feeding should be done by the use of feeders which can be constructed at very low cost (Conklin and Morton, 1936). The grain should be placed in or very near good permanent cover if the food is to be fully utilized. However, little winter feeding would be needed if food patches were planted and a few rows of corn were left standing for winter use. Making natural food available is the best plan for winter feeding. Now is the time to make plans for getting those

**TABLE 1**

**Counties From Which Crops Originated**

| County | No. of crops (Nov. 1940) | No. of crops (Nov. 1941) |
|---|---|---|
| Allegheny | 1 | 1 |
| Bedford | 0 | 2 |
| Berks | 4 | 7 |
| Butler | 1 | 0 |
| Cambria | 9 | 10 |
| Centre | 0 | 1 |
| Chester | 4 | 9 |
| Crawford | 1 | 0 |
| Dauphin | 2 | 0 |
| Delaware | 2 | 7 |
| Elk | 0 | 1 |
| Fayette | 0 | 6 |
| Franklin | 0 | 1 |
| Greene | 0 | 1 |
| Indiana | 0 | 2 |
| Lackawanna | 1 | 1 |
| Lancaster | 0 | 5 |
| Lebanon | 0 | 10 |
| Lehigh | 1 | 0 |
| Lycoming | 1 | 7 |
| Mercer | 0 | 2 |
| Monroe | 0 | 1 |
| Montgomery | 3 | 12 |
| Montour | 0 | 1 |
| Northampton | 0 | 1 |
| Pike | 0 | 1 |
| Schuylkill | 0 | 1 |
| Susquehanna | 1 | 11 |
| Tioga | 0 | 1 |
| Washington | 11 | 1 |
| Westmoreland | 6 | 17 |
| York | 1 | 0 |
| Unknown counties | 0 | 3 |
| Total | 49 | 123 |

**The above photo was taken in Carbon County, near Palmerton in 1925. Left to right: F. J. Allender, Allentown; Lloyd T. Seager, Red Hill; Paul Allender, and Raymond Wright, Allentown.**

**TABLE 2**

**Food in 49 Pheasant Crops Listed in Order of Occurrence, 1940**

| Kind of Food | Times Occurring | Percent of Total Volume |
|---|---|---|
| VEGETABLE FOOD | | |
| Corn (*Zea mays*) | 23 | 45.37 |
| Lesser ragweed (*Ambrosia artemisiifolia*) | 19 | 6.29 |
| Cherry (*Prunus* spp.) | 8 | 4.90 |
| Wheat (*Triticum aestivum*) | 7 | 1.99 |
| Wild grapes (*Vitis* spp.) | 6 | 2.93 |
| Buckwheat (*Fagopyrum esculentum*) | 5 | 4.52 |
| Smartweed (*Polygonum pennsylvanicum*) | 5 | * |
| Foxtail grass (*Alopecurus pratensis*) | 5 | * |
| Beans (*Phaseolus* spp.) | 4 | 5.95 |
| Raspberry (*Rubus* spp.) | 4 | 4.80 |
| Smartweed (*Polygonum* spp.) | 4 | * |
| Smartweed (*Polygonum convolvulus*) | 4 | .48 |
| Clover (*Melilotus alba*) | 3 | .29 |
| Haws (*Crataegus* spp.) | 3 | .48 |
| Sticktight (*Bidens* spp.) | 3 | .48 |
| Leaf fragments | 3 | 2.03 |
| Strawberry (*Fragaria* spp.) | 2 | * |
| Foxtail grass (*Setaria glauca*) | 2 | 6.53 |
| Horse nettle (*Solanum carolinense*) | 2 | .29 |
| Grass (Unknown species) | 2 | * |
| Ground cherry (*Physalis lanceolata*) | 2 | * |
| Switch grass (*Panicum virgatum*) | 2 | * |
| Wild pansy (*Viola* spp.) | 2 | * |
| Pigweed (*Amaranthus retroflexus*) | 2 | * |
| Barley (*Hordeum vulgare*) | 1 | 23.00 |
| Smartweed (*Polygonum persicaria*) | 1 | * |
| Foxtail grass (*Setaria viridis*) | 1 | * |
| Oats (*Avena sativa*) | 1 | * |
| Chickweed (*Cerastium nutans*) | 1 | * |
| White avens (*Geum canadense*) | 1 | * |
| False Solomon's seal (*Smilacina racemosa*) | 1 | .58 |
| Greater ragweed (*Ambrosia trafida*) | 1 | * |
| Elderberry (*Sambucus racemosa*) | 1 | * |
| Milkweed (*Asclepius* sp.) | 1 | .96 |
| Pokeweed (*Phytolacca decandura*) | 1 | * |
| Oak (*Quercus*) | 1 | 1.07 |
| Snowberry (*Symphoricarpos racemosus*) | 1 | 2.40 |
| Plantain (*Plantago lanceolata*) | 1 | * |
| Grass (*Panicum* sp.) | 1 | * |
| Grass (*Lolium*) | 1 | * |
| Unidentified seeds | 11 | * |
| ANIMAL FOOD | | |
| Grasshoppers (*Orthoptera*) | 9 | 3.12 |
| Beetles (*Coleoptera*) | 3 | .44 |
| Stink bugs (*Hemiptera*) | 1 | * |
| Spiders (*Arachnida*) | 1 | * |
| Snails (*Mollusca*) | 1 | * |
| GRITS | 3 | * |

*Trace.

**TABLE 3**

**Food in 123 Pheasant Crops Collected in 1941**

| Kind of Food | Times Occurring | Percent of Total Volume |
|---|---|---|
| VEGETABLE FOOD | | |
| Corn (*Zea mays*) | 63 | 51.40 |
| Lesser ragweed (*Ambrosia artemisiifolia*) | 38 | 7.50 |
| Foxtail grass (*Setaria glauca*) | 29 | 2.60 |
| Smartweed (*Polygonum pennsylvanicum*) | 15 | .50 |
| Skunk cabbage (*Symplocarpus foetidus*) | 14 | 12.30 |
| Wheat (*Triticum aestivum*) | 10 | 3.50 |
| Unidentified vegetable matter | 9 | .17 |
| Oak (*Quercus* spp.) | 9 | 1.00 |
| Smartweed (*Polygonum convolvus*) | 8 | .43 |
| Grass (*Panicum* spp.) | 8 | .62 |
| Wild cherry (*Prunus* spp.) | 7 | .14 |
| Touch-me-not (*Impatiens* spp.) | 6 | * |
| Milkweed (*Asclepius* spp.) | 5 | * |
| Riverside grape (*Vitis vulpina*) | 5 | * |
| Sticktight (*Bidens* spp.) | 5 | * |
| Violet (*Viola* spp.) | 5 | .43 |
| Black locust (*Robinia Pseudo-Acacia*) | 4 | .24 |
| Greater ragweed (*Ambrosia trifida*) | 4 | .76 |
| Pokeweed (*Phytolacca decandra*) | 4 | * |
| Oats (*Avena sativa*) | 4 | 2.90 |
| Leaf fragments | 4 | * |
| Pigweed (*Amaranthus retroflexus*) | 3 | * |
| Winter grape (*Vitis bicolor*) | 3 | .45 |
| Buckwheat (*Fagopyrum esculentum*) | 3 | 1.00 |
| Wild black cherry (*Prunus serotina*) | 2 | * |
| Beans (*Phaseolus* spp.) | 2 | * |
| Blackberry (*Rubus* spp.) | 2 | * |
| Spicebush (*Benzoin aestivale*) | 2 | .43 |
| Elderberry (*Sambucus* spp.) | 2 | .76 |
| Green foxtail (*Setaria viridis*) | 2 | * |
| Smartweed (*Polygonum acre*) | 2 | * |
| Lopseed (*Phryma Leptostachya*) | 2 | * |
| Squash (*Curcubita* spp.) | 2 | * |
| Ground cherry (*Physalis lanceolata*) | 2 | * |
| Smartweed (*Polygonum persicaria*) | 2 | * |
| Sorghum (*Holcus* sp.) | 1 | * |
| Alfalfa (*Medicago sativa*) | 1 | 2.2 |
| Bittersweet (*Celastrus* sp.) | 1 | * |
| Swamp rose (*Rosa carolina*) | 1 | * |
| Wild rose (*Rosa humilis*) | 1 | * |
| Horsenettle (*Solanum* sp.) | 1 | * |
| Flowering dogwood (*Cornus stolonifera*) | 1 | * |
| Smartweed (*Polygonum hydropiper*) | 1 | * |
| Black alder (*Ilex verticillata*) | 1 | .14 |
| Red elderberry (*Sambucus racemosa*) | 1 | * |
| Virginia creeper (*Psedera quinquefolia*) | 1 | * |
| Frost grape (*Vitis cordifolia*) | 1 | .43 |
| Panicled dogwood (*Cornus paniculata*) | 1 | * |
| Greenbriar (*Smilax sp.*) | 1 | * |
| Agrimony (*Agrimonia gryposepala*) | 1 | * |
| Sunflower (*Helianthus* sp.) | 1 | * |
| German millet | 1 | * |
| Wild crabapple (*Pyrus coronaria*) | 1 | * |
| Barley (*Hordeum vulgare*) | 1 | .52 |
| Dandelion (*Taraxcum officinale*) | 1 | * |
| White campion (*Lynchis alba*) | 1 | * |
| Jimpson weed (*Daturatatula* sp.) | 1 | .80 |
| Tick trefoil (*Desmodium* sp.) | 1 | .19 |
| ANIMAL FOOD | | |
| Grasshoppers (*Orthoptera*) | 18 | 3.70 |
| Beetles (*Coleoptera*) | 10 | * |
| Snails (*Mollusca*) | 4 | * |
| Mammal skull bone | 1 | * |
| GRAVEL AND DIRT | 1 | * |

*Trace.

**TABLE 4**

**Five Most Important Pheasant Foods Each Fall (1938-41) Based on Percent of Total Volume**

| Food | 1938[1] | 1939[2] | 1940 | 1941 |
|---|---|---|---|---|
| Corn | 54.0 | 41.4 | 45.3 | 51.4 |
| Lesser ragweed | 5.2 | 10.0 | 6.2 | 7.5 |
| Skunk cabbage | 2.5 | | | 12.3 |
| Buckwheat | 3.2 | 10.0 | | |
| Foxtail | | | 6.5 | |
| Sorghum | | 7.0 | | |
| Beans | | | 5.9 | |
| Barley | | | 23.0 | |
| Wheat | | | | 3.5 |
| Wild grapes | | 5.0 | | |
| Grasshoppers | 4.5 | | | 3.7 |

[1] Bennett and English, 1939.
[2] English and Bennett, 1940.

food patches planted so that food will be there next winter for the pheasants, quail, rabbits, and song birds. More food—more game.

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**The Forestry Committee of the Montgomery County Federation of Sportsmen's Clubs believes the populace ought to know more about the proper methods of controlling fires. The Federation had made up in three colors 2500 posters showing most of the important details. The posters, 18x23 inches in size, were distributed throughout the County prior to the start of the Spring fire season.**

# IN THE BEGINNING

*Continued from Page 17*

results. We also stopped the sale of game, including rabbits, killed in the state. I recall the fight on the automatic gun law well, and I personally, before Governor Stuart and a group of arms and ammunition men, showed him what little chance game had in front of a gun that could whip out six shots before you could bat an eyelash. I told him two was enough for any man. He agreed, and the day was saved.

"Has there been any change in the deportment of the sportsmen today compared with their attitude in earlier years?"

You were also interested in increasing the Hunter's License Fee to purchase game refuges. Yes, since hunting near Yellowstone Park in 1900, I have been interested in Game Refuges and am glad to say that against strenuous opposition from some unthinking sportsmen, and with the assistance of the late Governor John S. Fisher, one of our great conservationists, we succeeded in the 1927 session of our legislature in increasing our hunter's license seventy-five cents, making it $2.00. This increase amounted to about $400,000 a year, and must be used exclusively for the purchase and maintenance of Game Refuges, surrounded by public shooting grounds. Today, sportsmen own about 700,000 acres of this land, valued at approximately $2,683,970.87, scattered throughout the State.

"Decidedly. By virtue of the very fact that the measures they opposed in earlier days have worked out to their benefit, they have in later years followed the lead of the Commission and are supporting the various programs sponsored in their interest.

That is true to a great degree I affirmed, but reminded him that even comparatively recent programs designed to improve and properly administer game programs over a long period of years, had been condemned by some sportsmen, even before they had a chance to carefully study their purposes. I cited, for instance, the objection to antlerless deer seasons, to the Training School, the Reorganization Plan, and the Redistricting of Field Officers.

He admitted that, but pointed out that the opposition in those cases was prompted by individuals who had axes to grind, some of them personal; who saw an opportunity to lambast the Commission; who gathered a misunderstanding following and who tried to ride to glory on their shoulders. From what I can see, he said, all of those new departures have worked out admirably.

"In your opinion is hunting an asset or a liability?"

"Decidedly an asset. Sportsmen of Pennsylvania who pay two dollars a year to belong to the greatest hunting club in America, make a good investment. It is conservatively estimated that a sportsman hunting our entire hunting season could kill game worth at least five hundred dollars to replace. According to records of the Game Commission for 1940 sportsmen killed 25,200,000 pounds of edible game."

I asked him if hunting means anything to the people of the state as a whole, and he replied, "I consider hunting a national necessity. It trains men and enables them to kill a running deer with a rifle or a flying bird with a shotgun. It enables them to take care of themselves in the outdoors. Both these factors are vitally necessary to a nation in time of war. The protection and propagation of game and the protection of song and insectivorous birds by the sportsmen at their own expense have resulted in great benefit to our State. Hunting takes our people far afield to meet and become acquainted with their fellow citizens, to study and become familiar with the topography and resources of their state, thereby making for better citizenship. The benefits derived from vacations so spent cannot be figured in dollars and cents."

"What do you think of the present Game Commission?"

"We are fortunate at the present time in having an efficient non-partisan Commission who are serving the sportsmen without remuneration and giving their valuable time merely because of an unselfish interest in and love of the work. These gentlemen are all real sportsmen, many of them famed throughout America as conservationists. From personal observation and investigation they intimately know game conditions throughout the State. This information is supplemented by that corps of trained game protectors who are constantly in the fields and forests reporting their findings to the Commission. These protectors are thoroughly trained along conservation lines in the Commission's School."

And so ended a most interesting and enlightening interview with one of America's pioneer conservationists, to whom all sportsmen will ever be indebted and deeply grateful. Long may he continue to enjoy the fruits of his ardous labors!

---

You've heard of course, about the jealous doctor's wife who accused her husband of having too much to do with violet ray.

It is better to have dandruff than some things, because it doesn't move around.

Lots of men never horse around until some girl has taken them down the bridal path.

A pessimist is one who thinks all women are immoral. An optimist is one who merely hopes so.

Correct this sentence: "Don't want a thing, Senator," said the constitutent, "just dropped in to pay my respects."

We know a man who bought a business for a song and paid for it in notes.

# JUNIOR CLUBS

*Continued from Page 10*

sult in rapid completion of their dream range.

As Feit was proudly telling a few sportsmen of the work of his club, the men caught some of the enthusiasm with the result that an iron backstop and some other materials were donated and the club treasury enriched by a cash donation from the Kane Fish and Game club.

The school group then went to work in earnest, putting final touches to the range, constructing a concrete pit and installing floodlights for targets. Feit as a qualified rifle instructor, began teaching proper methods of handling guns with "dry shooting" taking up the initial classes. The boys brought their own guns—a variety ranging from inexpensive single shot .22's to fine high-power rifles.

The "breaks" continued in favor of the club when two fine Springfield target rifles were issued by the Director of Civilian Marksmanship at Washington, D. C., along with a few thousand rounds of ammunition. In a remarkably short time, the keen-eyed youngsters were chalking up near-perfect scores and keeping their instructor in constant practice to keep up with the pace.

A clamor by the feminine side of the high school resulted in arrangements for special classes in firearm instruction for girls. Soon a large class of girls was on the range each week and many developed into fine shots—and all good gun handlers.

As treasury receipts increased, "trimmings" were added—a 20-power telescope, shooting pads, special slings, shooting jackets and other equipment designed to enhance the facilities of the range.

The boys did not spend all their time on the range but continued the picture showing program and developed fly tying instruction and a shell collection. They continued full cooperation with the Kane Fish and Game club, entering wholeheartedly in the various projects.

The junior club aided in planting game food mixture, construction of shelters and feeding stations, in stocking of pheasants, quail and rabbits, and the establishment of a game refuge. Members of the club also aided in stream improvement work and trout stocking and have proven their worth time and again.

Last year, the high school club rifle team entered the NRA postal matches for junior clubs and placed third in Class "C" competition. This year, the club placed first in "B" class competition, shooting against close to 300 other junior clubs throughout the country.

## MAYAPPLE

(Continued from Page 19)

value, there is a reasonably constant demand for the root-tock of the Mayapple which is collected in September or October. Would you have guessed that this herbaceous plant is a member of the Barberry family and is rather closely related to the spiney shrub that is frequently used as an ornamental hedge?

---

Although about 150,000 live rabbits are shipped from Missouri during an average year, this constitutes an unimportant part of the annual winter decrease in the rabbit population. A careful, two-year study was made of four counties—center of the State's live-rabbit trade. While approximately 100,000 live rabbits were being shipped from this area during the winter of 1940-41, the survey showed, the total decrease for the four counties was more than one million rabbits. Hunters killed many more for the market than were sold alive. The highway mortality is high, and predators, starvation and disease kill off countless others.

Hardy and prolific, however, and subject only to certain cycle-like fluctuations not yet fully understood, the surviving rabbits bounce right back and replenish their population with another large surplus before the following winter. Farm boys and other trappers who supply the live rabbit trade realize from $20,000 to $25,000 annually from their combined efforts, according to the survey. Most of the live-shipped rabbits go to game departments of eastern states for restocking purposes.

---

## NATURE

All Nature embraces her lover,
  One who travels with seeing eyes.
To him, she is always revealing
  Some new and dainty surprise.

The wild flowers nod a shy greeting,
  The birds' songs welcome anew.
Your city friends may prove unfaithful,
  But your forest friends always are true.

—Charles H. Carr, Youngstown, Pa.

"In the Spring a young man's fancy lightly turns to thoughts of love." When that happens, and it certainly does happen, that young man is quite likely to become absent-minded, probably do some very foolish things. That tendency is not restricted to human Don Juans. The lowly cottontail rabbit is similarly afflicted, and we frequently see him flattened out on the highway a victim of Spring and the automobile.

We need those rabbits for the pleasure and relaxation of the sport they provide our Pennsylvania hunters. A moment's consideration on the part of the driver will help perpetuate this sport.

At the same time you are driving slowly to conserve your tires you will be in a better position to reduce game fatalities on the highways. Glaring headlights in particular bewilder Bre'r Rabbit, and giving him the low beam may save his life.

During the spring and early summer months the highway toll of small game is terrific, especially rabbits and ringneck pheasants, as they are particularly active during this period. **Drive slowly and save three R's—rubber, rabbits and ringnecks."**

---

Much that is looked upon as genius is nothing more than labor and diligence.

## PUBLIC HUNTING GROUNDS FOR SOUTH DAKOTA

Out of state sportsmen who hunted in South Dakota last fall paid an additional five dollars for their non-resident licenses which heretofore cost $15.00 for a season's hunt. This increased fee however, did not deter non-residents from flocking to South Dakota as reports have it that the non-resident shooters were about double the number in 1941.

Though they may not be aware of it, the non-residents' additional five dollars is earmarked and set aside for the purchase and leasing of public shooting grounds. Much credit for this objective goes to the Aberdeen chapter of the Izaac Walton League, and to one of its members, Joe Brennan, member of the Legislature, who got behind the proposal and saw it through the legislative body.

The public hunting grounds problem is becoming ever more pressing; Colorado is considering the matter in relation to upland bird shooting, and Wisconsin sportsmen are urging purchase and lease of both hunting and fishing grounds to insure open areas in that state.—Outdoor America.

---

Man is much like an incandescent light; if lit up too often he'll eventually burn out.

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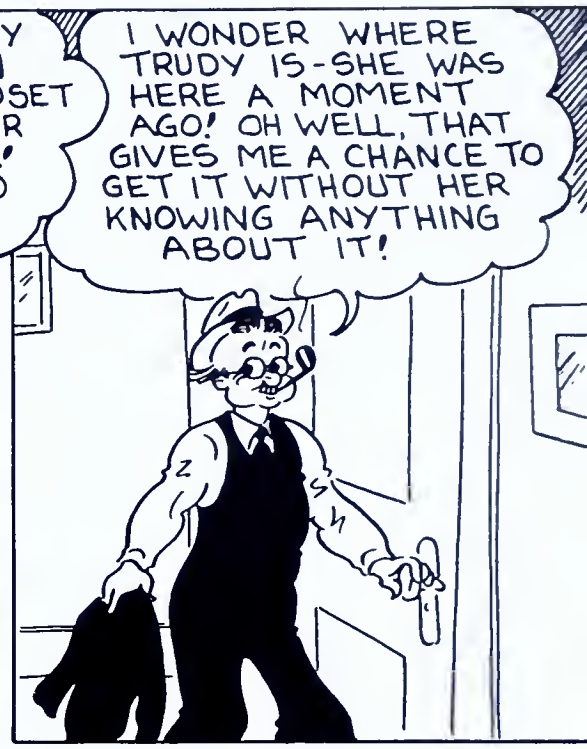

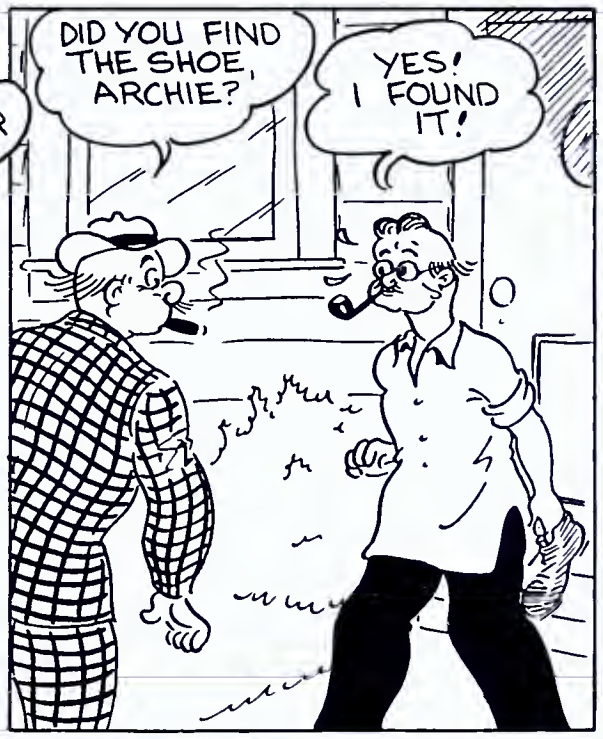

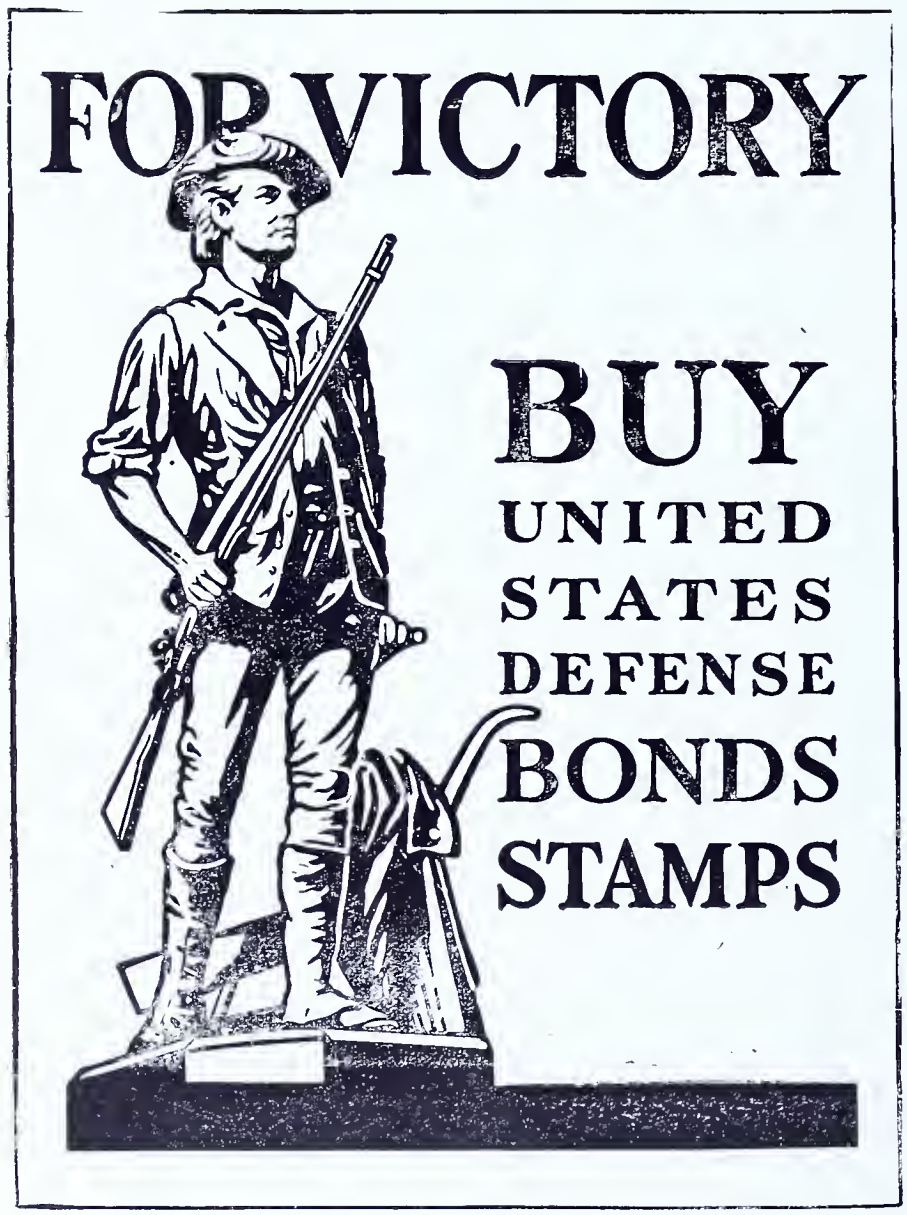
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# PENNSYLVANIA GAME NEWS

June 1942

Ten Cents

WALTER A WEBER

# PENNSYLVANIA GAME NEWS

PUBLISHED MONTHLY BY THE PENNSYLVANIA GAME COMMISSION, HARRISBURG, PENNSYLVANIA

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VOL. XIII, No. 3

# EDITORIAL

JUNE, 1942

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THE BUCKTAIL MOUNTAINS
By Joseph R. Kendig

★

PENNSYLVANIA WOODSMEN
By Melvin P. Knopf

★

YOU NEVER KNOW
By Paul P. Prugh

★

CURRENT TOPICS

*Cover by Walter A. Weber*

## FULFILLING A PLEDGE

IN the April issue of this publication the Pennsylvania Federation of Sportsmen's Clubs, through its president Merrill C. Merritts, promised the farmers throughout the State that they would lend a hand during harvest time. That promise in the form of a resolution became a pledge from each individual member of the clubs affiliated with the Federation to the food growers of the State.

The time has now come to fulfill the pledge. Haymaking time is here, and soon other crops will be ready to harvest. If you meant it, now is the time to contact those farmer friends who share their land with you during the hunting season. Find out when crops will be ready and plan to spend as much time as you can spare helping him. A few hours will help and a few hours may be enough, especially if you are not familiar with the working end of a pitch fork. The main thing is do what you can. The farmers need help and Uncle Sam needs all the grain he can get this year.

All the advantage is not with the farmer. You yourself will benefit by fulfilling your promise. You will have an opportunity to show that you are not a selfish individual bent only on bagging as much game as you can, in the shortest time possible every year, but that you have an interest not only in the game but the farmer and his problems as well. You will never get a better opportunity to help your country, discuss farm and game problems, and make a friend of the man who can do most for you and your sport. If you don't take advantage of it you are making a sad mistake. Remember too, empty promises will not put food on the table in the days to come.

## HISTORIC

BEGINNING with this issue, and continuing until the August number, we are planning to feature the portraits of every Commissioner, and all the executives and assistant executives, who served with the Game Commission since it was first organized during the Fall of 1896.

The presentation of this picture story, which appears on pages 16 and 17, marks the culmination of several years of laborious work on the part of various employees of the Commission in acquiring the photographs. In the early days the photographic files of the Commission were very incomplete; consequently, pictures of many of the Commissioners and other officials long since deceased were not on file. As a result it meant picking up loose threads here and there, and following one lead after another until finally all were accounted for.

The eight Presidents to date are shown in the top row. It is rather a coincidence that since its establishment 46 years ago 45 Commissioners have served or are now serving, and the outstanding example which lends itself to the spirit of this presentation is the fact that those living who are not now serving, by their continued interest, advice and enthusiasm, are nonetheless still helping to steer the ship of which they were once a part.

That spirit has continued throughout the years. It has been largely responsible for the great strides which have been made along conservation lines in Pennsylvania, and it is up to all of us who are now serving to keep that spirit and tradition alive.

BUY U. S. WAR BONDS AND STAMPS

P38.34
1.6

A WOODLAND ROAD

Photo by W. L. R. Drake

# THE ORGANIZED SPORTSMEN'S PART IN WILDLIFE CONSERVATION

## By R. S. Cooper*

★

IN 1890 organized sportsmen (Pennsylvania State Sportsmen's Association) sounded the alarm in reference to the fast-disappearing outdoor resources of Pennsylvania namely: Forests, Pure Streams, Fish and Game. This was due to the march of the saw mill, industrial activities, forest fires, the market hunter, and the lack of proper legislation.

In 1896, due to the influence of this group, Governor Hastings appointed the first Game Commission. At a later date, by act of Legislature the Fish Commission was appointed.

This was the beginning of the organized sportsmen's fight for the conservation of outdoor resources in Pennsylvania. What has been accomplished is a matter of record. These pioneers in wildlife conservation were highly devoted to their cause. They set a high standard of sportsmanship to be followed by conservationists who now must carry on their work in the interest of future generations.

After the Commission was appointed, people thus became more enthusiastic in regard to the future of wildlife. Sportsmen's groups were organized throughout the State, often working at cross purposes.

Prior to 1915, the Wildlife League of Pennsylvania was organized with the thought in mind that all local clubs throughout the State would be incorporated with the League. Thus, organized sportsmen would speak one language in regard to legislative matters. Later, however, the Wildlife League, for some reason, lost interest and the membership dropped off. This sounded the death knell of a fine organization.

In 1923, independent county organizations became more popular throughout Pennsylvania. Thus over 1000 local organizations were affiliated in county groups. Frequently disagreements existed on state legislative matters between county organizations. Various groups took issue with both the Game and Fish Commissions in regard to management, etc. This meant that a coordinated plan of action was imperative.

*Chairman, Southwest Division, Pennsylvania Federation of Sportsmen's Clubs.

In 1931 the Pennsylvania Federation of Sportsmen's Clubs was organized on a broad plan that was acceptable to the county organizations throughout the Commonwealth. The Federation guarantees an equal representation for all county units regardless of membership. The county organization, by this system, is now divided into eight divisions throughout the Commonwealth which composes Pennsylvania Federation of Sportsmen's Clubs. Each county is entitled to one delegate representing them at the division meetings and state conventions. Also the county delegates form the sovereign body of the convention held in Harrisburg each year. The annual membership of the Federation exceeds 80,000. Each member is assessed a per capita tax of five cents.

Due to the recognition of merit extended to the Pennsylvania Federation of Sportsmen's Clubs by the National Wildlife Federation, with whom we are affiliated, our influence in the conservation of natural resources has thus extended beyond county and state lines, despite the fact that some speakers representing other organizations seem to derive great satisfaction in discrediting the officers and members of local clubs with the public statement: "Local organizations do a good work but they don't go far enough." If the leaders of any other group have the prestige and ability to organize the hunters and fishermen in other states comparable to the Pennsylvania Federation of Sportsmen's Clubs, they will have solved the problems in so far as stream pollution and wildlife conservation are concerned.

The officers and members of the Pennsylvania Federation have supported all practical legislation regardless of who proposed it, state or national, designed to purify our streams or improve the environment of wildlife. We understand something about sound land management. We know something about strip farming, the effect of land erosion, also the resultant effect due to the exploitation of our great forests, a component part of that great natural filter system that means so much to the well-being of our people.

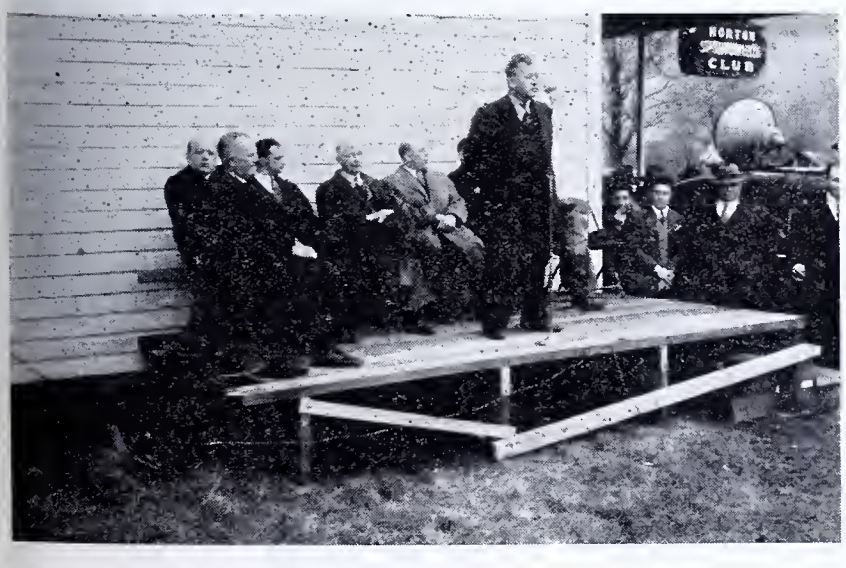
The officers and members of the Pennsylvania Federation of Sportsmen's Clubs have won the confidence of both the Game and Fish Commissions to the extent that our representatives are invited to sit in on important meetings of each group when considering policies in regard to legislation of game and fish laws, open season, bag and creel limits, etc.

We are the stockholders, and we are thus recognized as such. The members of both the Game and Fish Commissions are doing everything possible to cultivate the good will and understanding of the sportsmen of Pennsylvania. Any fair-minded person who will study the reports or minutes covering the annual state conventions of the Pennsylvania Federation of Sportsmen's Clubs held at the State Capitol at Harrisburg will be favorably impressed with the objectives of the organization and also the constructive plans adopted for the current year. In each case when the game and fish code is revised, the hand of organized sportsmen is predominant.

The thing that makes this all possible is the support and cooperation received by the individuals which form the various county organizations. Don't be misled by the statement that massed membership is not essential to success in wildlife management or conservation activities. We solicit the membership of every law abiding hunter and fisherman in Pennsylvania. We need your influence and advice in which case victory will be assured.

Sometimes the statement is made, "Keep your organization free from political influence, it will ruin any sportsmen's organization, etc." I cannot support any such theory. Every constructive law or act of legislature that we have ever passed to conserve natural resources has been attained through political

(Continued on Page 31)



**Flag raising ceremony of the Horton Township (Elk County) Sportsmen's Club on April 5. Every year more and more clubs are being formed and older ones expanding. See write-up on page 24.** Photos by Earl E. Smith

# MAN THE BORROWER

## By Ray L. Abbott

*Reprinted Courtesy "Frontiers" Feb. 1942*

*Photos, Pa. Dept. of Agriculture*

THE tireless dragonflies were shuttling before me, their flat, airplane-like wings gleaming; some whirligig beetles skated the water at my feet; out where my bobber danced in the ripple a snapping turtle thrust his triangular periscope through a film of duck weeds and looked shoreward. Into my lazy brain came a vagrant bit from Kipling:

"When 'Omer smote 'is bloomin' lyre,
'E'd 'eard men sing by land and sea;
And what 'e thought 'e might require,
'E went and took, the same as me."

Well, Homer may have started this taking game in the writing world, but long before he wrote, his ancestors and mine were appropriating the mechanical ideas and devices they saw around them in nature. And man does the same today. Copy nature? Not always consciously perhaps, but using an idea from nature and then claiming that it was humanly conceived.

Aside from the wheel and axle, which have no counterpart in nature, hardly a weapon that man has devised does not have its model in the natural world. His airplanes, balloons, parachutes, submarines, periscopes, poison gas, tanks, smoke-screens, bullets, armor, swords and spears have been commonplaces among the animals for millions of years.

Although my earliest ancestors probably used a thorn for a fish-hook, the fishing process is nothing but a human version of what the great anglerfish has been doing with his fleshy line and colored lure for untold millions of years. He coaxes his victims within range of his jaws; man has improved upon his method by placing a hook in the lure.

Those whirligig beetles also illustrate my point. They are surface skaters, but every now and then vary their sport by catching a bubble of air beneath their wing-covers and going diving until the air is used up. Aristotle tells us that human diving by artificial aids was being done in his time, 2,000 years ago. But that is only yesterday in the history of the whirligigs.

These insects cannot stay under water long, in comparison with a human diver with his stream of fresh air supplied from above. But our ingenuity, even in this, has been equalled or bettered by another insect. For in any pool of foul water, one is likely to find a larval fly, the rat-tailed maggot, which doesn't need to have fresh air pumped down to him as he forages in the mud at the bottom. He gets his air from above by sucking it through a long tube which reaches from his body to the surface of the water!

Adult Ant-lion

Then, consider the water spider. What fisherman in seining minnows hasn't brought up with the debris one of these gray, eight-legged creatures looking as sleek and dry as if water had never touched it? That is the water spider. It can remain submerged for hours or even days. It can sleep and raise its young down under by a method almost too novel to be believed.

First it spins a broad, air-proof web deep under water, fastening it between the stems of water plants. It must work in short shifts on this part of the job, for then it is depending for air upon what it can carry down on each trip. The web it built is to be its living quarters, so it must next be filled with fresh air.

With web anchored, the spider bobs up to the surface, thrusts its abdomen and back legs into the air with a kind of grabbing action, then drags them quickly under again. By this means it catches bubbles of air in the hairs of its legs and body. Next, it dives and, beneath its web, releases the bubbles of air which, remaining under the web, balloon it slightly. The spider keeps this process up until the buoyancy of the enclosed air is sufficient to lift the elastic and loosely stretched web into a sort of sac open at the bottom and closed at the top.

The spider then crawls into its chamber and remains there as long as the air supply lasts, even suspending eggs from the ceiling. When the air is vitiated the spider cuts a hole in the top of the chamber, lets the air escape, then repairs and again fills the chamber. Has this creature left anything to man by way of originality in going under water?

Today, on hundreds of ships, anxious eyes are searching the seas for the periscope, that dread eye of the submarine. Yet even in this device, so important both in marine and land warfare, man was anticipated by the stalked eyes of certain deep-sea fishes and those of the familiar snails, crabs and lobsters. For these curious eyes, mounted on movable pegs, are certainly periscopic in function.

When modern man made his marvelous descent of thousands of feet into the ocean, he discovered that the fishes already held priority over man in aquatic feats. The adventurers found fish were carrying their own self-manufactured lights.

The Challenger expedition, sent out by the British Government some years ago to survey the sea bottoms, reported that new manila ropes two inches in diameter used for dredging were compressed to a diameter of one inch at depths of two miles. How then can fishes stand the pressure at half a mile down?

It is reported by whalers that a harpooned whale may dive vertically for half a mile or more and return to the surface without injury. The pressure on the whale at that depth is incredible. Which is but another way of saying that man has yet much to learn from the animals about deep-sea diving.

When a savage traps a tiger in a pit or kills with poison dart, he is doing only what the lower animals have been doing for millions of years. The larval forms of the insect known as ant-lions dig deep, funnel-shaped pits in the sand at the bottom of which they lie with jaws agape for whatever tiny creature may tumble into the trap. If the trapped creature, usually an ant, momentarily escapes and attempts to climb out, they hurl sand upon it until it falls back again.

The poisoned dart idea is more ancient. The little hydras of our ponds and the jelly-fishes of the ocean—both of ancient families—still harpoon and poison their victims by a host of tiny darts. The noxious hairs of caterpillars, the poisoned spines of bull-heads, and the deadly fangs of certain snakes are each and all only further applications of the same principle. Even the blow-gun idea has been solved by certain fishes, for the archer fish can project a drop of water into the air with

(Continued on Page 29)

Bombadier Beetles

Dragonfly

Photo by Leo A. Luttringer, Jr.
**Grey squirrels at feeding station.**

# More Squirrels in Penn's Woods

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## By Floyd B. Chapman

SQUIRRELS are often ignored in the development of broad conservation programs. This indifference is not astonishing when one considers that there is very little organized opinion to foster squirrel management. Many people who just like to see squirrels would wince at the suggestion of shooting and eating one. Such people are legion. They like nature as a diversion, want a more abundant wildlife, but have no voice in its restoration and preservation. Then there are the squirrel hunters. In an average year these fellows take one million, thirty-eight thousand, three hundred ninety-four squirrels from Pennsylvania's woods. The real dyed-in-the-wool squirrel hunters have their strongholds in the middle Atlantic States and parts of the South where squirrels have been prized as game since the days of Daniel Boone. To be sure, there are "off years", but squirrels are usually plentiful enough in these sections for the dwindling number of crack shots who live with them all year, and know which hollows they are in when the acorns and hickory-nuts ripen.

Another branch of the squirrel hunting fraternity is the city fellow whose granddad hunted squirrels. The men of the family and occasionally the womenfolk still carry on the tradition. It is these fellows who notice keenly the lean years, when the "low" of the squirrel cycle hits their neighborhood. They work in the city all year and look forward to the squirrel season with great eagerness. There are many great "hunters" in this group. They oil their guns and peer through the sights at about monthly intervals until the great day comes. If the squirrels are plentiful, they usually bag one or two, but, if it is a "low" year, they go home empty-handed and write a letter to the Game Commission—"Why doesn't your department do something about squirrels. The season should be fifteen days earlier in this county. A lot of us feel that there should be a closed season for a year."

These are the fellows who kick a lot about the scarcity of squirrels but they are not the type which organizes pressure groups to force some pet plan on the Commission. The squirrel hunter is a true individualist—one who hunts alone—living in a day when his type is rare. As the populations of his prey fluctuate, he has learned to take the bitter with the sweet. He does not ask for restocking or predator control or other "shot-in-the-dark" measures. If he bags nothing, he, of all hunters, is satisfied to come home empty-handed. He has had his allotted day in the open.

There is much the game commissions might do to improve the squirrel situation. Fortunately for the hunter and the nature lover, the formula of squirrel management is a simple one. Scientists now realize that, given a suitable year-round food supply, a sufficient number of hollow trees for dens and refuge cover, and sensible regulations governing hunting, squirrel populations can be built up to almost any desired level. This may sound like an overstatement, but I have observed thirty fox squirrels in a three acre picnic grove and more than fifty-five gray squirrels on a tract of similar size in the heart of a large midwestern city. In both cases, the optimum conditions of protection, abundance of food and dens had been met. However, remove or alter one or more of these factors and the populations decline almost immediately. When a corncrib was removed from a corner of the grove and the acorn supply failed the same year, the thirty fox squirrels disappeared.

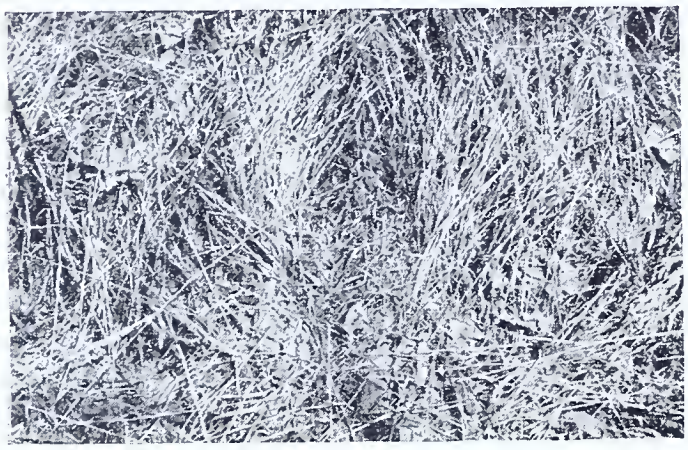
Our second-growth forests of today are not conducive to optimum populations of either gray or fox squirrels, since there is not sufficient mature timber to furnish dens, refuge cover, or a sustained food supply at all seasons. We must believe the historians when they write about the abundance of squirrels in the original forests. In the case of gray squirrels, it is the mature but not necessarily virgin forests that produce large populations.

Fortunately for this species and for other forest wildlife the foresters of today are sufficiently broad-minded to realize that wildlife as well as timber growing should have equal consideration in the well managed forest. This means that where clear-cutting is the prescribed method of harvest, sufficient overmature trees should be left as seed trees and as den sites and food producers for squirrels. On the other hand, where selective cutting is practiced, the "wolf" trees should be left as a contribution to the squirrels, as the value of these animals for hunting and esthetic purposes more than offsets the space lost to timber production. If these suggestions are followed, the requirements of squirrels will be fairly well taken care of.

Loss of the chestnut was a catastrophe for the gray squirrel, since this species of nut came into production in the second-growth forests at the age of five years, long before the oaks and hickories. There is also evidence that the chestnuts fruited more consistently

(Continued on Page 30)

# Cottontail Rabbit Nests and Nestlings



Nest covered.

Nest partly uncovered.

DURING the spring and summer of 1939 a study of the nesting activities of the cottontail *(Sylvilagus floridanus mearnsi)* was made in Pennsylvania, and the results were published by Beule (1940). The study of this important phase of the life history of the cottontail was continued in the typical farming country of Centre and Lycoming Counties, Pennsylvania, during the breeding and nesting season of 1940. This paper presents the results of that investigation and a comparison of the data for the 2 years.

The work was done under the supervision of Dr. Logan J. Bennett, Biologist, U. S. Fish and Wildlife Service; Dr. P. F. English, Associate Professor of Wildlife Management, Department of Zoology and Entomology, The Pennsylvania State College; and Richard Gerstell, Chief, Division of Propagation and Research, Pennsylvania Game Commission. The writers are also especially indebted to Roger M. Latham, Game Research Assistant, Pennsylvania Game Commission, for valuable aid during the 1940 study.

### The Nesting Period

In Pennsylvania the usual cottontail nesting period extends from the middle of March through September. Nesting activities before March 15 and after September 30 apparently involve only a small part of the cottontail population and are of minor importance. During the two breeding seasons studied, May appeared to be the most effective nesting month, although April, June, and July were also of considerable importance.

Hamilton (1940) stated that mating in New York State was apparently delayed in 1939, and the writers' field work in Pennsylvania led to a similar conclusion (Table 1). The field work of 1939, however, was not started until April 1.

Table 1 presents the approximate birth dates obtained by three methods for 204 cottontail litters. Birth dates were estimated from the sizes of the nestlings, from the sizes of embryos removed from pregnant does, and from the condition of successful old nests. Although the information thus obtained is approximate, it appears significant when tabulated by months.

### Location of Nests

Because cottontail nests were found in a number of cover types, an attempt was made to evaluate these types as nesting areas. The approximate acreage of each cover type searched for nests was recorded, and from these data the approximate number of acres to a nest was obtained. This method of evaluation indicated that although more nests were found in fallow fields than in any other cover type, fallow fields did not have the greatest density of nests. Unkept orchards held 1 nest to 1.54 acres, whereas fallow fields contained 1 nest to about 13 acres. The data in Table 2 indicate that unkept orchards and young pine plantations are important nesting areas, although only 15.7 per cent of the total of 121 nests were located in these types.

**TABLE 1**
**Birth Month of 204 Cottontail Litters.**

| Month | 1939 | | 1940 | |
|---|---|---|---|---|
| | No. of litters | Per-cent of total | No. of litters | Per-cent of total |
| March | 0 | 0.0 | 3 | 2.7 |
| April | 2 | 2.2 | 32 | 28.3 |
| May | 44 | 48.4 | 39 | 34.5 |
| June | 22 | 24.2 | 21 | 18.6 |
| July | 17 | 18.6 | 10 | 8.8 |
| August | 2 | 2.2 | 5 | 4.4 |
| September | 4 | 4.4 | 3 | 2.7 |
| Totals | 91 | 100.0 | 113 | 100.0 |

As herbaceous cover grew after nest destruction or abandonment, only cover around functional nests was evaluated. This evaluation was made by measuring the density and height of the vegetation on a mil-acre plot surrounding the nest. The data obtained on 23 nests in use showed a wide range in the height and density of cover. No nests were found in areas devoid of cover.

Some cottontails selected peculiar locations for their nests. One nest was found in a rockpile at the edge of a field; a nest in a manure-pile was recorded by Beule (1940); and in the crotch of a willow tree, 9.5 feet above the ground, a nest containing five young was observed by Shadle (1940). Certain sites in orchards, plantations, and woods, however, semed to be favored. Most of the nests observed in these types were at or near a tree or stump and opened away from it.

No choice of exposure, in regard to compass points, was apparent. Nests were found on all degrees of slopes from 0 to 35 per cent. All but two of the nesting cavities faced downhill. These two nests, on 5-and 15-per cent slopes, faced directly uphill; and both were successful.

### Construction of Nests

A general description and measurements of cottontail nests were included in a previous report (Beule, 1940). Because most of the recent data corroborated previous findings, only new material and supplementary information on debatable subjects are here discussed.

Throughout this investigation observations have indicated that the nesting cavities were dug by the female rabbits. In 1940 a cottontail was seen with its front feet in the bottom of a typical nesting cavity; the cottontail had apparently sensed the oncoming observer and ceased to dig. The freshness of the excavated earth strongly indicated that the cottontail was responsible for the construction of the cavity. Two other cottontails were chased from freshly constructed nesting cavities, and subsequently both cavities were lined with grasses.

Cavities were known to have been lined with grasses on the first and second days after their construction, thus it was indicated that both operations were occasionally completed at the same time. Three nesting cavities were dug at least 6 days before the birth of the young, and corresponding periods of 12 and 17 days were noted for two additional nests.

Obviously, nesting cavities were often abandoned, especially if the grass lining or the surrounding vegetation was disturbed. Mice and skunks may often have pulled out the grasses or otherwise disturbed the lining, causing the cottontail to select a new nesting site. Two occupied nests were found short distances from abandoned cavities.

[1] Paper No. 26 from the Pennsylvania Cooperative Wildlife Research Unit, the Fish and Wildlife Service (U. S. Department of the Interior), the Pennsylvania State College, the Pennsylvania Game Commission, and the American Wildlife Institute cooperating.
Authorized for publication on April 15, 1941 as Paper No. 1029 in the journal series of the Pennsylvania Agricultural Experiment Station.

[2] Co-leader, Pittman-Robertson Project Penna. No. 6-R, "General Ecological Investigation." A portion of this paper represents a report on one phase of the Federal-Aid Project, conducted in conjunction with a long-term investigation previously undertaken by the Cooperative Unit.

By JOHN D. BEULE and ALLAN T. STUDHOLME

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### Litter Counts

During this study 35 litters of nestling cottontails were examined and 9 sets of embryos were obtained from rabbits that had been struck by automobiles. Table 3 shows that the size of the litters ranged from 2 to 7, which corresponds to the figures given by Hamilton (1940). Seton (1929) gave us the size of litters as 4 to 6 or 7 and rarely 3 or 8, whereas Gerstell (1937) found a range of from 3 to 8.

**TABLE 3**
**Number and Size of Litters in 1940**

| No. of litters | No. of young in litter |
|---|---|
| 1 | 2 |
| 3 | 3 |
| 13 | 4 |
| 12 | 5 |
| 9 | 6 |
| 6 | 7 |

The average number of young in a litter during the 1940 nesting season was 4.95. In 1939 the average for 26 litters was 5.42 (Beule, 1940). Generally the litters were larger during the first half of the nesting season and became smaller as the season progressed. The same trend was observed in the number of litters examined. Table 4 records the number of litters and their average size by months during the 2 years.

**TABLE 4**
**Litter Counts Obtained By Months For 1939 and 1940**

| Month | 1939 | | 1940 | |
|---|---|---|---|---|
| | Litters examined | Average in litter | Litters examined | Average in litter |
| April | 2 | 6.0 | 9 | 5.0 |
| May | 8 | 6.1 | 13 | 5.3 |
| June | 8 | 5.8 | 8 | 5.87 |
| July | 4 | 4.5 | 8 | 4.25 |
| August | 2 | 3.5 | 3 | 4.0 |
| September | 2 | 4.5 | 3 | 3.66 |
| Totals and averages | 26 | 5.42 | 44 | 4.95 |

**TABLE 2**
**Nesting Sites and Success of 121 Cottontail Nests**

| Cover type | No. of nests | Successful | Unsuccessful | Undetermined | Percent successful | Approximate acres per nest |
|---|---|---|---|---|---|---|
| Fallow field | 47 | 34 | 12 | 1 | 72.3 | 13.0 |
| Hayfield | 31 | 22 | 8 | 1 | 70.9 | 7.0 |
| Unkept orchard | 13 | 10 | 3 | 0 | 76.9 | 1.54 |
| Young pine plantation | 6 | 5 | 1 | 0 | 83.3 | 2.0 |
| Pasture | 5 | 4 | 0 | 1 | 80.0 | 14.0 |
| Fencerow | 7 | 4 | 3 | 0 | 57.1 | 10.9 |
| Roadside | 4 | 2 | 1 | 1 | 50.0 | 8.59 |
| Woods | 2 | 1 | 0 | 1 | 50.0 | 13.5 |
| Lawn | 2 | 0 | 2 | 0 | 0.0 | Insufficient data |
| Beside structures | 2 | 2 | 0 | 0 | 100.0 | Insufficient data |
| Rockpile | 1 | 0 | 1 | 0 | 0.0 | Insufficient data |
| Golf links | 1 | 0 | 1 | 0 | 0.0 | Insufficient data |
| Totals | 121 | 84 | 32 | 5 | | |

### Description of Newly Born Cottontails

On September 15, 1940, a litter of five cottontails was found scattered through a pen in which a wild-trapped female was being held for experimental purposes. The female was known to be pregnant, and the pen had been examined the previous day. The young, therefore, were less than 24 hours old. They had already lost the extremely pink color characteristic of a litter of very young animals found in the wild: they were probably 15 to 20 hours old. Two of them were dead of exposure, and the remaining three were cold and wet. The more important measurements and weights, recorded soon after these nestlings were found, are presented in Table 5.

Cottontails are pink at birth, but the backs and sides of these animals were already darkened. A sparse covering of light-colored guard hairs was evident over the entire body surface. These hairs had reached a maximum development of 2 millimeters on the back but were scarcely ¼ millimeter long on the appendages.

The ears and eyes were tightly sealed, lines showing where their openings would appear. A pin-point opening was discernable at the apertures of the sex organs, and the opening to the anus was slightly larger. On the abdomen were slight protuberances—similarly developed on both sexes—where the teats would be. The teeth were generally undeveloped. The incisors had barely penetrated the gums, and the molars could not be seen. All the toes had claws less than 1 millimeter in length.

### Age Determination and Development of Nestlings

To determine the ages of nestling cottontails, weights and measurements of all available nestlings were taken daily. Cottontails weighed approximately 25 grams at birth and averaged about 112 grams when they left the nest. Weight, however, was an unreliable indicator of nestling age, as a wide variation often existed among members of the same litter. Some litters also contained runts or exceptionally large individuals; and although this difference was sometimes apparent in the measurements, a wide variation always occurred in the comparative weights.

Daily measurements—including total length, tail, tarsus, and ear—were recorded for each

**TABLE 5**
**Weights and Measurements of Newborn Cottontails**

| No. | Total length | Tail | Tarsus | Weight |
|---|---|---|---|---|
| | mm. | mm. | mm. | g. |
| 1 | 104 | 10 | 20 | 23.3 |
| 2 | 107 | 12 | 20 | 28.5 |
| 3 | 104 | 10 | 21 | 31.5 |
| 4 | 106 | 9 | 20 | 33.0 |
| 5 | 108 | 10 | 20.5 | 31.4 |
| Averages | 105.8 | 10.2 | 20.3 | 29.54 |

(Continued on Page 28)

Nest Uncovered.

Days Later.

# Neophytic Shadows ALONG THE BUCKLINE

"There was a beautiful antlered head high in the air."

MORE than twenty-five years had passed since the day when I had last tried to do some hunting in Penn's woods and fields. Then I was a youngster in my teens, with the only gun I had ever owned, a shabby .22 rifle. This I had received in an exchange transaction wherein I had relinquished the cherished possession of a group of pedigreed Belgian hares.

But upon my return home on the day mentioned, I resolved that hunting would never again be an item cluttering up my program; for I had two physical weaknesses that made it impossible for me to scale with any degree of comfort, on the frosty mornings usually encountered during the hunting season, the hills and logs of western Pennsylvania. So I quietly put the gun away, and that was that, never to break my resolution through this long span of years.

Then one day we moved to a fine little town, where most of the men and young men of the neighborhood were enthusiastic deer hunters. Deer had come to that territory within quite recent years, and these had multiplied very rapidly, as they were all fed and protected through the State's splendid system of game preserves and refuges. Men there took up deer hunting with great interest and success. I had heard considerable talk by them about the fine sport in hunting the wily animal, but it made no appeal to me, remembering too well my youthful hunting experiences.

My son had been given an old '73 Springfield rifle which he brought home, and it had been parked behind my desk in the corner of my study for a year or two without scarcely ever being noticed by me or any other in the home. One evening, about two weeks before the opening of deer season, when hunting talk about town was getting pretty "hot", I called at the home of our high school coach; and while we visited together he said, "If I had a rifle I believe I would try to get a deer when the season opens." To this statement I replied, that if he had the disposition to hunt deer I would furnish the rifle, stating, however, its limitations for modern hunting. He said, "If I cannot get a repeater I will try your gun."

Within the next day or two this thought popped into my mind: "What about that old rifle?" I reached for it behind the desk, took it out, brushed off the dust, and something seemed to say to me, "You tried to be a hunter when a young fellow, why not try it again?—this time for deer, for you are now in a deer territory, and your old physical troubles—asthma and the like that once plagued you—are gone".

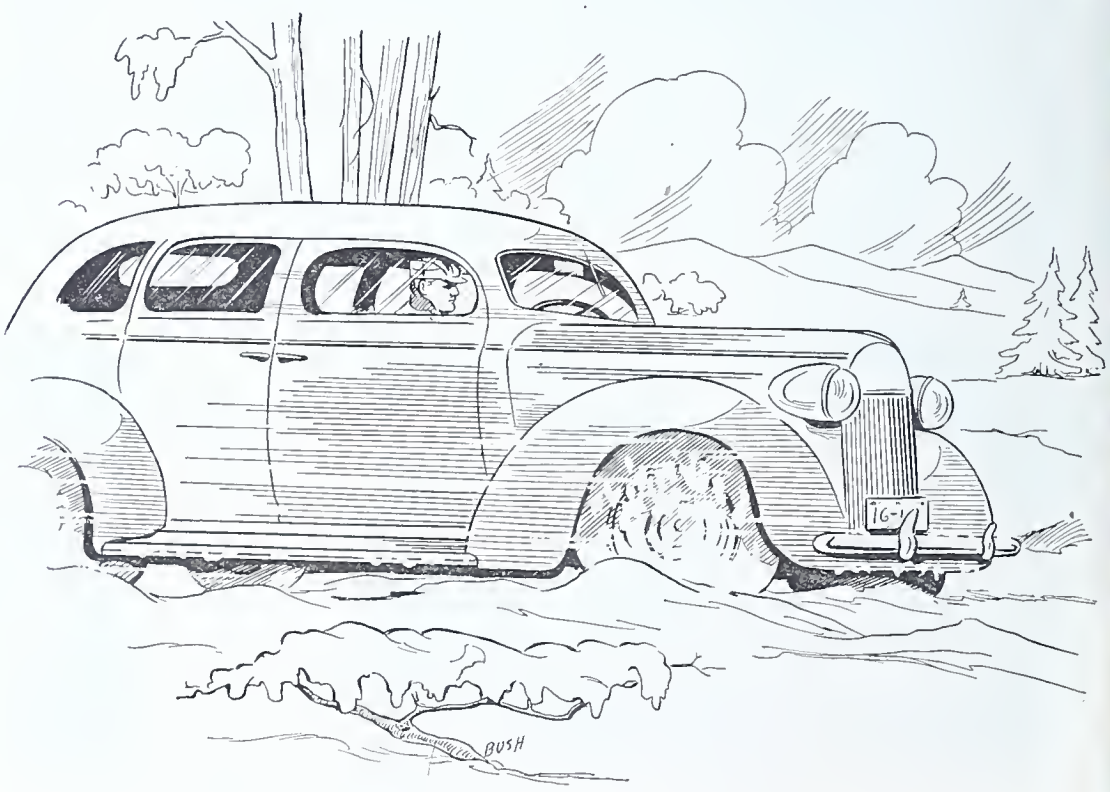
Right there I concluded I would try myself out, provided the coach did not come to get the gun. In talking to an acquaintance the next day I found he was using a gun of the same model. He said he had made a pretty good gun for deer out of his by removing the woodwork and cutting seven inches off that thirty-two inch barrel. So I arranged with a machinist to do this with this gun; but when I took it to his shop he had gone to the country. I was now all "het up" and anxious to get the gun ready for the woods, so I put it in my vise, took a hack saw and off came seven inches of that barrel as had been recommended. I abbreviated the government furniture on it and streamlined what woodwork still remained. Having cut off the front sight with the barrel I improvised another, secured my hunting license, did a little practice work with this 45-70, sighting it in the best I knew how, and I was ready for the opening of the deer season.

When the season opened I went out alone, stalked the woods and fields for two days where I had often seen deer as I drove the highways; but I saw only tracks, and these very plentiful. I thought several hundred deer had been there just before I arrived on the scene. And I was getting pretty badly discouraged, though keeping this to myself, when friends, learning that I had been hunting, began to ask me to hunt with them.

One of these men invited me to spend the last week of the season with him at his camp in the "upper big woods". I gladly accepted this invitation, stating that I would be there early Monday morning if nothing prevented. Another said, "If you are going up there you must take my .30-30 repeater with you, and leave that old blunderbuss of yours at home." So he brought his rifle down to me; but when he began to instruct me how to load and operate it, alas! alas! he discovered (rediscovered) it jammed; and after repeated efforts he concluded by saying, "Well, I thought the gunsmith had it in good working order, but it still jams. However, it is a lighter gun than your's, and if you want to take it and use it as a single shot, instead of your own, you can do that."

Now my practice with the old '73 had told me just where to hold to put the lead where I wanted it on a reasonably close shot, so it was with considerable mental protest that I took this strange gun in place of my own. I hoped, however, that I would get a chance to shoot it a few times, and perhaps correct the jamming trouble, before I arrived at the camp; but this cherished hope did not materialize.

I started next morning at two o'clock for my hundred mile drive to camp. I had said, "If I go I'll be there by seven o'clock—shooting time; if I am not there by that time do not wait for me." The nearer I got to the place of action the deeper the snow. Directions given me as to the location of this camp in the Allegheny National Forest were not the most detailed, and when I left the main road for that fifteen mile backwoods drive the snow was knee deep. I was uncertain at times whether I was on the right road, so many roads seemed to appear. But on and on I went, with good fortune leading



"The nearer I got to the place of action the deeper the snow."

# By Charles C. Mohoney

**We hunt, and do some shooting, too; our success or failure is pretty largely determined by our judgment, our carefulness, our perseverance, and the element of good or bad fortune—usually called "luck".**

★

me to the camp. I arrived there at 7:05, just as the men were leaving for the day's hunt. They had concluded I was not to appear that day. And was I glad when I found they were still at camp? For had I missed them I would have been a stranger in a wide forest, with a big blanket of deep snow, and nowhere to go for shelter; for no arrangements that I knew of had been made for my entry to the camp; and a group of eight men, dashing for the deer stands and drives, on a first day of their hunt in the last week of deer season would, ordinarily, have little concern for a total stranger coming into their midst. But these were real fellows, who respected the friendship of one of their number for me, gave me the glad hand, and we were off.

Soon the men were seeing game, but I was blind as one could be, expecting to see the "picture book deer;" not counting on seeing a tail, a snout, or other small "spot" portion of the body only. It was well into the day when I began to see them moving here and there through brush and timber, with caution or rapidity, in that snowy field.

The captain of the party placed his men with great concern, and often said to me at stands; "good luck to you." When I assisted in a drive I managed to get sandwiched in between the more experienced men of the party so I would not trail, and I soon found I could "hound" as well as any of them.

It was the morning of the second day out, when on a stand, I saw my first long string of deer. Apparently out of the nowhere, up out of the snow, as I held my position, they began to come; one, two, three, and so on, until they numbered thirty; but not an antler on one of them. They were not in a hurry, but snooped around, until finally the leader began to cross; then they all filed over that fire line where I stood, and not one of them saw me or hinted at knowing I was present.

"For he, too, missed."

"His head was down between his knees."

I stood not more than sixty feet away from them.

A little later two beautiful does came out of the woods, pranced along the crest of the hill, watched me, I looked back with considerable regularity for a mile or more, as they traveled onward. Then they finally disappeared in the scrub timber near the State refuge. Here they are always safe behind the wire enclosure.

It was quite late in the afternoon of that same day, when I was standing "watch", that three or four fine does came up within thirty feet of me, looked about, not discerning my presence for some time. Then one of them saw or scented me. Then the jig was up and the whole lot reversed in a flash and were gone into the deer hunter's nowhere. There I concluded that if the stories one hears are true, then Mr. Buck will be along presently. So I stood quietly; one, two, five minutes, perhaps; shaking for fear he would come, and shaking for far he would not come; when suddenly, directly in front of me, possibly 25 yards away, headed up this quiet steep hill—there was a beautiful antlered head, as beautiful as any I had ever seen, rising high in the air; and scarcely moving. That terribly loaned, borrowed and abused gun, the property of a friend—one I didn't know where it would shoot, or what it would do, when I did shoot it, held firmly in my hand. But up it came to my shoulder, and "BANG!"—as I looked across its sights at that beautiful animal. Yet, as if by lightning speed, that wonderfully antlered fellow reversed, with one great swing sideward and backward—and he was g-o-n-e. He had landed on much lower ground. I didn't drop the lever to reload, for I well remembered even now that it was the old "jammer" I was holding. Nor did I attempt to reload by hand; I stood amazed that I had seen him at all. Then it came to me, 'How far did he leap?' So I went to examine his tracks in the snow, and I found he had done a better job than the "daring young man on the flying trapeze." But why had he appeared so high at my first sight of him? I found a narrow mound of earth, about as high as a big stump, standing there; and as he came up the hill he mounted that hillock with his front feet to observe the territory about him. There we saw each other at apparently the same moment.

That was my discovery. But as I further contemplated the situation there was a "bang! bang! bang!" For my partner just below me, an old timer in the woods, with many bucks to his credit; with good rifle—and all kinds of sights on it—attempted to get this buck as he swung around and tried to cross below him. But his effort was in vain for he, too, missed that beautiful fellow of those mountains by a sufficient margin to allow him to try the evasive trick another day on some Brother Nimrod; for now the shooting day was fully spent. So campward we betook ourselves, awearied, but happy, and hopeful for success on the morrow.

This was the only antlered head seen that entire week by any member of our party; and it was the first time in many seasons that the legal (or almost the legal) number of deer was not taken by that camp group in one of Pennsylvania's most thickly populated deer areas.

That should have been my first buck, and I feel confident it would have been had I been carrying my old Springfield that day, instead of the old borrowed "jammer", for which delinquency (borrowing a rifle is much like borrowing false teeth—they seldom ever fit) I have never quite forgiven myself.

Deer were increasing so rapidly that the next open season was for does only, and having had a liberal taste of this good thing of hunting the previous year, I was out the first morning ready for the first minute of shooting. I had in the meantime discovered the trouble with the old "jammer" (one loose screw in the slide), had purchased it from its owner, and put it in fair shooting condition.

(Continued on Page 26)

# The Bucktail Mountains

Pennsylvania's Grand Canyon — Pine Creek Gorge, Lycoming County.

By Jos. R. Kendig

★

WHEN the West Branch Valley was a big timber forest and the lumber business was the chief factor of employment, thriving sawmill towns existed throughout its broad expanse.

In this region, during the period of the Civil War, foregathered the pioneer mountain men with buck tails fastened on their hats and their trusty rifles in their arms—four companies of them—and floated down the West Branch of the Susquehanna River on rafts of their own building to the State Capital, later to become the nucleus of the famous Bucktail Regiment of sharpshooters.

Then game laws were practically nonexistant and some noted native hunters and trappers had records of a thousand deer and bears killed, and much was heard of the deer hounds used in hunting. But an epoch was coming to an end.

The first law in recognition of the threatened extinction of the deer and bear, as had happened to the elk, wolves and beavers, was that forbidding the hunting of deer with dogs. Thus was taken one of the first steps in conservation.

Timber, seemingly inexhaustible at first, was rapidly showing signs of severe exploitation, and lumbering days were visibly drawing to a close.

The cut-over lands became a wasted wilderness. Every Spring and Fall forest fires burned until rain put them out, and the general appearance of the land was one of desolation. The lumbermen and sawmill men moved out of the valley and mountain farms were largely deserted. A new epoch was about to begin. The larger sawmill and tannery towns turned to other activities, such as coal and clay mining and manufacturing.

The conservation of game and fish and reforestration were uppermost in the thoughts of forward-looking men and women of the day. Suitable Commissions were inaugurated by the State Legislature and the great work of reclamation was underway.

The exploited and burnt-over timber lands were bought by the State in large acreage and this effort continued until 1,600,000 acres were acquired by the Department of Forests and Waters, and the problems of fire prevention and forest management became State enterprises.

The first primary game refuge for wildlife was established in Clinton County (now there are over 300 throughout the State) and subsequent land management by the Game Commission lifted big game hunting, pre-eminent in the Bucktail Mountains, into National prominence.

Since the advent of the automobile, touring in Pennsylvania had increased with potentialities unrecognized until the Department of Commerce became aware of its economic value and began publicizing the State's scenic and historic places.

With road improvement by the Highway Department much touring in the Bucktails doubtlessly will follow.

These mountains comprise the drainage area of the West Branch Valley of the Susquehanna River west of Williamsport and consist of a high plateau south of the St. Lawrence Divide and east of the Allegheny Divide.

The flat-topped mountains, which are in reality what is left of the floor of the originally higher plateau, have been eroded to form the side walls of the canyon-like valleys, and afford the largest area of mountain scenery of its kind in the Appalachian Range. This scenery is best observed from the highways in its narrow valleys, which valleys also make more secure the habitat of the deer and bear.

The Bucktail Mountains are big game country, big scenery country, and big timber country. If publicized as a specific area they would become of far greater value to our Commonwealth. To see them one must drive through this great phenomena, as the main traffic lanes skirt the edges of this vast mountain area of four million acres.

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# PENNSYLVANIA WOODSMEN

## By MELVIN P. KNOPF*

THIS is not an advertisement nor is it a publicity stunt. It is simply to let sportsmen, farmers and all around outdoorsmen know what goes into the making and maintaining of a "Pennsylvania Woodsman."

"To Help, Protect and Improve, the Farm Woodlands of Pennsylvania" is our motto and that seems to cover our objectives fairly well. How do we help? We try our best to protect the woods from the ravages of fire. We improve the woods by clearing trails, building bridges, cutting and burning dangerous windfalls, destructive vines and diseased trees.

You are probably wondering how this organization originated and why. Well, that's a long story but I'll see how brief I can make it. It originated a number of years ago, that is, the idea originated, when the author began to pay particular attention to the deplorable conditions of waste and destruction that exist in many of our woodland sections. Having been born with a natural love for nature, this had a revolting and saddening effect upon me. I resolved that somehow, somewhere and someday I would do something about it. Hence this organization.

It is all voluntary work from beginning to end. Our pay is derived from the sheer pleasure of being in the woods and in the self satisfaction of having done something worthwhile and done it well. I knew that in order to accomplish this purpose I could not use grown men who were set in their ways, but instead I would have to take young boys and mold them to fit the purpose. Why? Because boys can be brought up to think in terms of trees and animals, etc., but for grown men, this is difficult indeed.

*President of Pennsylvania Woodsmen, McKees Rocks, Pennsylvania.

Some of the boys ready to go.

Our organization is composed entirely of boys from 12 to 18 years old. We are entirely independent of any other organization and have no set regulations concerning dues. Everything that we have we have worked for. We're proud of this too, and it makes the boys work all the harder because they know that they're working to help themselves and their character as well as conservation.

It is not just another gang of kids out to have some fun. Many older than any of us have been amazed at the strict regulations and requirements we have set for ourselves. And, we don't make regulations just for the fun of it. Already we have ousted one-third as many members as we have in now. You see, in order to wear our emblem and arm band and really be a "P. W." a boy must put in 52 weeks training himself. Any time missed must be made up at the end of the year. In that 52 weeks he must walk to our training grounds which is 5 miles from our headquarters, not counting the amount walked in the woods. So you see, in that year he walks at least 600 miles.

But that is by no means the toughest job. Some of the other things he must know are: how to build a fire in the woods quickly at any time, day or night, summer or winter. He must know how to travel in the woods in the day time or at night. He must know how to maintain a feeding station, how to build bird houses and the best places to put them, and above all, to have a deep and profound love for the woods.

I could go into detail about how our meetings are conducted, disciplinary measures and many other things that go into the making of our organization, but I shall refrain from doing so. All that I can say now is that these boys are working against tremendous odds. The work one can produce in a day in the wilds can be compared to a bucketful of water thrown into the sea. Thru the blistering heat of the summer and the hardest, coldest blasts of winter, you can see them marching along, single file, down the winding road to do their bit for posterity.

When we're through with a boy he will either love the woods forever or swear never to take another step into it again, for when he goes with us down that road he faces something vast and new, something that will give him a new, cleaner outlook on life, and something that no man will ever understand or completely conquer. It will show the egotist that he is not so great after all, and it will show the lad with no confidence or reason for living that there is something to live for, and that there is a place for everyone just as there is a place for every tree.

That is the real purpose behind this organization folks, to help these boys to better understand their place in this world and to

(Continued on Page 27)

Training grounds camp. We build no structures or shelter. It must be kept clean and neat at all times.

"Filling our pipes, we sat down on an old tree stump, wondering what would happen next."

# YOU NEVER KNOW

SO you've never been 'coon hunting," I says to Al. "Well fellow, you haven't lived yet."

And so it all started that a friend of mine, who had never followed the hounds through the night, decided he would have to try this much lauded sport with me before another season passed.

It was drawing towards the close of the 'coon season, and the weather had settled down to be quite cold and blustery. I hadn't hunted for a week, and on the way home from work one evening, decided it was still too cold and rough for 'coon to run, so put away all thoughts of going hunting that night.

As I neared home I noticed Al's car parked in front of the house but still didn't think of hunting that night, for he and his wife, Thelma, often came out to spend the evening with us.

"Hurry and get ready for supper," Hon said. Hon is my wife, you know. The four of us were soon gathered around the steaming victuals, and about the middle of our meal Al asked how the 'coon hunting was going this year. I told him O. K. and slyly asked, "How about taking a little hunt tonight?"

Well Al looked at Thelma, and Thelma looked at Al, and they both grinned at each other, saying nothing. Finally Thelma said, "He's got his hunting clothes out in the car."

"Well," I says, "it doesn't look like a very good night, too cold and windy, but we'll try it a little." The dogs needed a run anyway, I thought.

"If you'll excuse me a few minutes I'll just set the boys' feed in to them before I tackle that apple pie and another cup of coffee." I explained to them that I didn't like to run the dogs too soon after feeding; not good for them.

After I finished eating I went out and gathered up their empty pans, and cleaned up their kennels. Old Bill knew there was something up, and wouldn't go in his kennel and lie down, and every time he heard the door bang he'd let out a whoop. And Ace, that darned fool pup, just kept running around the kennel yard whining, anxious to be off. Many a night those dogs knew we were going hunting, nearly before I knew it myself. They just seemed to sense it in the air someway, I don't, and never will, know how.

Well, when I came in from doing the chores, Hon had our hunting clothes piled around the kennel yard whining, anxious to looked like we were going to the North Pole.

"I hope we don't have to walk more than twenty miles tonight with these clothes on," says Al. I told him we wouldn't go too far, for secretly I didn't think we would hit a thing. But, I said, to keep his hopes high, "We'll need all these clothes and maybe wish we had more if we have to wait on top of one of those Gobbler's Knobs for those hounds to unravel a bad track."

So about 9:30 we started, telling the girls we'd only be gone an hour or so; wouldn't be late. I just figured we'd go back and hunt a couple of strips of woods about a mile from town and if we didn't hit a track would circle around towards home. I knew 'coon traveled these woods for I had caught the largest ringtail I ever got in one of them the year before, a twenty-three pounder, and treed an old one with three young in training season.

I kept the dogs on the leash across the fields, but as we neared the first strip of woods turned them loose. In a second they were gone, into the night.

The wind was still blowing some and it was very dark, hard to keep our lights lit, and hard to see without them. We dropped down into the hollow out of some of the wind and parked ourselves behind a big oak tree to wait and listen. After a while there was a rustling in the leaves and in came Black Ace. "What's the matter boy," I says "no good tonight?" at which he shook his big long ears and whined for Bill. I always talk to my dogs, like they were a couple of kids, and I think they understand a lot, toc

"Al," I says, "I'm afraid you're not going to like 'coon hunting for this is a bad night, too cold, too windy, and awfully dry and noisy in the woods." He insisted he enjoyed getting out for the fresh air and exercise anyway.

We waited probably fifteen minutes longer. Ace had wandered out again, and not a bark was heard anywhere, when Old Bill came in to us. "What's wrong, no good Bill boy?" I asked him, the same as the pup. He wanted to start again but I told him to "stay here boy, till Ace comes in, then we'll go." In a few minutes the pup came in and when he saw Bill, made a dive for him, and we were off.

We had to cross a large, grown over field, up over a hill, to the other woods, and as we started my hopes were still at a low ebb. Oh, well, we'd get in early, and anyway Al could say he'd been 'coon hunting, I thought. In this frame of mind I was trudging along up the hill trying to keep my head turned so my light would stay lit, Al close behind me saying something about some kind of a wind on top of that hill, when all thunderation broke loose out along the ridge ahead of us, along an old road that ran back through the fields.

"Boy, oh boy, listen to that," Al said, "is that a 'coon they hit?"

"Nothing else," I told him, for I knew those anxious voices too well. First the old dog, then the pup, then both together; such a jumble of barks and howls you never heard. Then they were quiet a few minutes. "They're too anxious," I told Al, "haven't been hunted for a week, and are pushing the track too fast and have run over it. They'll straighten him out in a minute. There they go." They cut off at right angles and took straight down over into a piece of cut-over timber, full of tree tops and hard going.

We moved down to the edge of this slashing, out of the wind, and waited. Filling our pipes we sat down on an old tree stump, wondering what would happen next. The dogs were having some trouble which I expected in this jumble of old tree tops and snags, for I knew no 'coon could go through this slashing and refrain from pulling some stunts for his pursuers to figure out.

"If he doesn't tree in here, he'll probably pull for the No. 2 woods or the one we just left," I told Al. It didn't seem, though that he was going anywhere very fast, for the present anyway, for Old Bill just mumbled occasionally, and the pup had become silent.

"Did you hear what that Old Bill just said down there?" I asked, "Well if you didn't I won't repeat it. It's simply awful the way that old dog curses sometimes when a 'coon mixes him up. A shame too for I'm afraid that pup, Ace, is picking it up from him. Anyway I thought he said something kind of naughty a little bit ago."

"Let's see what the trouble is," I said to Al, and noticed a trace of disappointment stealing over his features. We wiggled our way down through the mass of tree tops and green briars, and found Old Bill, up on one tree top, then down, walking along another

*By Paul P.. Prugh*

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on his hind legs, sniffing away for all that was in him, and Ace just wandering around smelling here, then there, a bewildered look on his face. I kept watching that black pup, though, as he snuffed down an old log road, bare and frozen. He came back then started down again.

"Look, Al," I says, "that 'coon came off those tree tops onto this road, the hardest place on earth for a hound to trail."

We followed the pup slowly down the log road, then Old Bill came trying his best to get that scent on the hard frozen ground. On down to the edge of the woods to the edge of the paved road we slowly worked the track. Then Old Bill got ideas, and across the road down into the pasture field he bounced, the pup close behind. About two sniffs and they were off again, a melody of joyous barks and bawls. Across the creek and up the pasture on the other side. Then all of a sudden the chase slowed again.

"I'ts either darn hard trailing tonight, or that's an old cunning fellow they're after, or maybe both" I told my companion.

"No tree tops up there I hope," says Al.

"None that I know of," I assured him, "but just wait we'll see what this time."

We were half way up the steep pasture field when "Wooooo! Wooooo! Wooooo! Way up on top to our right came that long drawn out bawl from Black Ace. No sooner had the echoes drifted away into the night, than Woh! Woh! Woh! The shorter barks of Old Bill floated to us from our left, along the edge of the corn stubble.

"Yes, sir," I says to my buddy, "I thought so; some funny monkey business going on." Out the length of the corn field went those hounds now in full cry, one on one side of us, one on the other, then coming together like a great wedge at the end.

"You know what," I says to Al, the light dawning on me, "that's a darn big 'coon that can straddle himself and run on both sides of this strip of corn at the same time."

"You're kiddin'," he says, "but something's darn funny here, both dogs were on a track, alright, or then maybe I'm not a 'coon hunter yet."

"Yes," I told him, "more than one 'coon made these tracks out across here, and they muddled things up plenty back there in the slashing."

The hounds were driving hard now, filling the night with that melody so welcome to the hunter's ear. Down through the ravine, across the swamp land, up the other side they went, and we started moving too, in order to keep in good hearing distance. Over the next hill they went, across another road heading for another strip of timber, which up to this night I had never been in before. Fact was I didn't know exactly where we were by now. Anyway it sounded as though we were going to tree a 'coon.

"Al" I says, "I believe you're going to see a 'coon up yet. Those hounds are sure sending him places now." I felt sure the old master of strategy would have to take refuge soon.

We stopped to catch our breath a moment and listen. all was silence: yes, sir, downright silence. You could hear your heart pounding, and wanted to hold your breath to catch the slightest sound that might be those hounds somewhere in the distance.

"What now?" Al asked, "are they out of hearing, or more trouble?" He was becoming quite anxious and also a pretty good 'coon hunter in the bargain.

"No, but wait a minute" I told him, "I think he's up". Sure enough, there it came echoing thru the night. Sweeter music never drifted on an Autumn wind. "Woh! Woh! Woh! Old Bill, the master, talking up. "Listen, now," I says, "you'll hear something you won't forget tomorrow." "There."

"Woooo! Woooo! Woooo! Woooo!" Black Ace's bugle tree cry. It almost sent the shivers down your spine; something haunting in that puppy's howl.

"Boy, I'll bet they hear that back in town," Al says.

We took our time now and left the boys sing, for we had warmed up from our last spurt of traveling in our Eskimo clothes, and I knew Old Bill would sing away till we got there no matter how long it took. As we entered the timber our lights caught the white of the old dog at the butt of a giant oak, and the pup left off his bawling long enough to meet us, then back to the tree to give him another talking to. I patted both dogs and encouraged them. "That's the way, Boys, speak to him, let him have it." They always like that. Then we began looking for eyes, somewhere up in that monarch of the forest.

"Here he is, Al, way up there; see him, see those eyes up thru there? Hold the light behind me till I see if I can move him." We just had the .22 rifle along and I knew I would have to hit him fair to bring him down, and another thing, I knew we could never climb that tree. I took careful aim at those two balls of fire, and squeezed the trigger gently. Then something began to happen above us, Crack, bang, smack, down through some old dead limbs he came. With a thud he hit the ground and bounced down over an embankment, both dogs tumbling and rolling after him. He was hit pretty hard, but still game, and gave those hounds a good battle.

"All right, Bill, let go. Now, Ace behave, we've got him." I told the dogs, but they still would like to chew him up some more. Guess they were mad about the fooling they got back in the slashing. I finally got them to calm down a little, and hung the 'coon up in a sapling out of their reach. He was a nice one, I suppose around fifteen pounds.

I looked at Al and says, "Like to be a 'coon hunter?" He grinned and agreed it was great.

We were admiring our catch when I began again to think of that chase back in the corn field. "You know, Al. I still say there was more than this 'coon ahead of those hounds. Let's look that tree over some more." We were at the lower side of the tree now and hadn't anymore than started to look when I spotted two more eyes, higher up than the first had been. "What did I tell you, here you take a crack at this one." He insisted I do the shooting, saying he would catch this one when he came down. I told him to go ahead if he wanted to lose a finger real quick. He allowed maybe he'd better wait 'till he had a little more experience before he grabbed one.

We began manuvering for a position where we could see this fellow, and found we had a job. As I said he was higher than the first one and seemed to be behind a limb where we could see his eyes just now and then. I made several shots at those two red orbs before one finally took hold and down he came. This time we had a real fight for he was only hit in the neck, and let the dogs have it with tooth and claw until Old Bill got his throat hold, and when he does the devil himself won't make him let go until his victim stretches out. The pup is different, hasn't learned yet, but he will, and just grabs anywhere just so he has 'coon in his mouth.

We looked this one over and he proved to be a dead mate for the first one, probably a litter mate.

During all of the excitement following the trail, the treeing, and the shooting down we had forgotten the cold, the biting wind, and above all forgotten the time. Now that it was all over Al came to with, "What time do you suppose it is? I have to be at work at eight o'clock and twenty-five miles to drive." I began digging thru my coats and jackets for my watch, almost afraid to look, for I

(Continued on Page 32)

"Hold the light behind me 'til I see if I can move him."

# POISONOUS PLANTS AND INSECTS

## By A. B. CHAMPLAIN

MORE fallacies than facts are believed by the majority of persons concerning insects credited with having poisonous qualities. These persons firmly believe that everything which crawls or flies can bite or sting. People also attribute to these six legged creatures, power of inflicting wounds that cause death or they imagine some other exaggerated power of destruction.

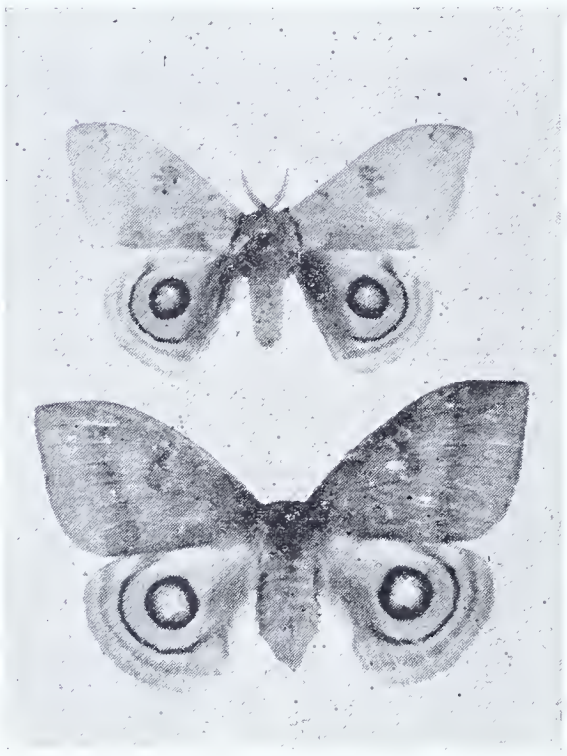
The truth is that only a very small proportion of our insects are capable of inflicting severe wounds, not necessarily deadly fatal, but painful and irritating. Occasionally, on account of infection or the tempermental condition of the person involved, these injuries may assume serious proportions. However, the injury to average human beings is too small to justify our prevailing fear or dislike of all these creatures. We should learn to know and understand the ones that have these interesting and unique weapons for their protection and defense.

Butterflies and moths appear to us as the most attractive and beautiful creatures of the insect world. We never associate them in any way with having poisonous qualities. We forget the fact that the young of butterflies and moths are lowly caterpillars that creep and crawl their way through a short life, eating the foilage, stem and fruit of plants, often to our annoyance when the plants grow in our gardens.

Caterpillars or "worms" as they are often designated, may have a repulsive appearance to many of us, but the majority of them are harmless and may be handled with impunity. There are a few, however, that will bear watching. The Io moth is a very beautiful and striking creature, bright yellow or purplish red in color, with eye spots and fancy trimmings. Green worms that will reach two inches in length are the youngsters of this brilliant flutter. There is a conspicuous lateral stripe of dark red and white along each side of this caterpillar and the whole body of each one is covered with clusters of branching spines. These spines have a very sharp and poisonous tip which may penetrate a soft substance such as our skin and break off easily. The result is a severe rash accompanied by inflammation.

Again, we have the saddle-back, a caterpillar that reaches about one inch in length. The moth or parent is a small modest velvety-brown insect that most of us would never notice—but an infant of the species never fails to excite the wonder and curiosity of those not versed in insect lore. On the back

Photos Pa. Dept. of Agriculture



Top, larva or caterpillar of the Io Moth; bottom, adult male top, and female below.

of this quaint caterpillar is a large green patch resembling a saddle cloth, while in the center the saddle is well represented by an oval brown spot. At each end of the caterpillar are warts and protuberances upon which grow many thorn-like hairs which sting like nettles when they are brushed against the skin. The prompt application of soda or ammonia solution is suggested as a remedy for these poisons of an acid nature.

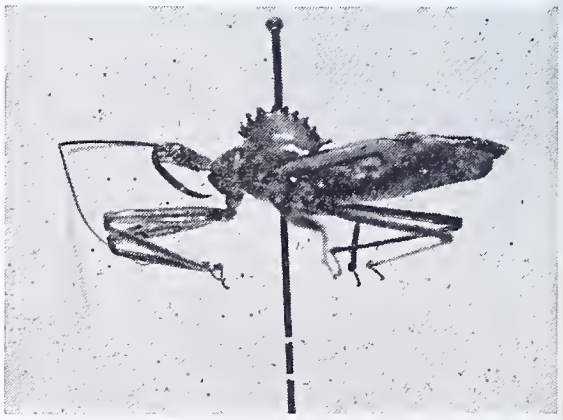
Standing out with respect to their possession of poisonous organs are the bees, wasps, hornets, yellow jackets—and here I must say etc.—there are so many more. They belong to a large family with members everywhere. The stinging organs of this group are confined to the females and workers and are modifications of the ovipositor or egg-laying apparatus. The sharp pointed sheath commonly called stinger is generally used in inflicting the wound and the poisonous secretion, mainly formic acid is forced from glands in the body through the channel in the stinger to the wound. As most of us have had experience along this line a description of the reaction is unnecessary. An alkali solution or the application of moist clay as a drawing agent is a simple remedy.

True bugs of many kinds are capable of inflicting sever wounds. Most persons habitually designate all insects as bugs, but the real sucking bugs comprise but a small portion of the insect world. The members of this group have the mouth parts formed into a beak fitted for piercing and sucking. Assassin bugs, kissing bugs, bed bugs and other disreputable species with equally vicious habits are found in this general lot. They are mainly beneficial to man because many of them attack and destroy other noxious insect pests. Occasionally we find examples like the bed bug with no redeeming traits who have developed a taste for human blood. The kissing bug scare that is periodically revived may be attributed to a super-abundance of individuals of the Assassin bug family. When once these bugs pierce the flesh of a human being with their beaks, a poisonous substance is injected into the wound, causing nausea, a burning pain and soreness that may last for several days.

Poisonous gases and acids used as weapons of destruction in war times are topics of general conservation. It is interesting to note that these methods of warfare have long been in vogue among insect tribes. Striking examples of these novel means of offense and defense are demonstrated in a spectacular manner by the bombadier beetles with their gas bombs. When pursued by some enemy or disturbed in any manner, they discharge an ill smelling, reddish acid fluid from special organs at the hind end of the body, accompanied by a sound similar to that of a small pop-gun. As the fluid comes in contact with air it changes to a bluish smoke or vapor. This substance coming in contact with the nose or eyes of a person or animal, or striking a pursuing foe, quickly causes a burning or choking sensation and gives our beetle a chance to get away.

Finally it may be said, that certain ordinary insects although not generally feared, often tolerated and sometimes accepted as necessary evils, cause more bodily injury and suffering to human beings than any of the most terrifying and ferocious of the poisonous varieties. These are the insects that bring illness and death into our homes. The common house flies that carry the germs of typhoid fever and other diseases from place to place; the mosquitoes that harbor the germs of yellow fever, malaria and similar dangerous organisms; the fleas and lice and all that come in the category of domesticated pests, the most dangerous and least feared by the great majority of persons.

Giant European Hornet.



Wheel Bug.

# COHOSH BUGBANE

*By Robert B. Troxel*

★

**COHOSH BUGBANE**
*(Cimicifuga racemosa)*

★

If you should hike out into the woodlands during June or July and find a tall, slender leafy stemmed herbaceous plant, from which arises a spike-like terminal cluster of feathery white flowers rising to a height of 8 feet, you have found Cohosh Bugbane.

The Latin name of the plant means to drive away bugs. Therefore, attractive as these flower clusters are to the eye, they generally do not prove attractive very long to those who may gather them for their beauty. The offensive odor probably accounts for some of the common names applied to this plant, such as bugbane and bugwort. Other names have been developed from the medicinal values it shall possess, some of which are black snakeroot, rattlesnakeroot and squawroot.

The flowers do not all open at one time and there may be seed buds, blossoms, and seed pods on one spike. This spike may be from 6 to 20 inches in length. There are no showy petals but the flower is made up entirely of numerous white stamens and the pistil, but they are arranged in such a manner as to give the spike a fluffy appearance. Occasionally we hear the common name rattletop applied to this plant. If you are standing near a cluster of the pods that are full of seeds, during late autumn or early winter, and the wind is passing over them shaking them about, you will understand the significance of this name.

Photo Pa. Dept. of Agriculture

**Bugbane, bugwort, snakeroot, etc.**

The Indians regarded the thick, knotty root as a certain cure for venomous snake bites, and it was also highly esteemed as a remedy for their squaws.

Today it is not considered very satisfactory in its use against snake bites, but it is used medicinally for certain ailments and is recognized as official in the United States Pharmacopocia.

# THE CANINE CORNER

**By Evan C. Stineman**

With the mops and dust flying from one end of the country to the other it's time for all dog owners to think of getting their dog quarters cleaned of all the old bedding and winter mustiness. Whether you have a dog box or a more elaborate kennel house it is of the utmost importance that each be given a thorough house cleaning. A strong disinfectant should be utilized. Your druggist or veterinarian will be glad to recommend a suitable solution.

In the summertime it isn't necessary for your dog to have bedding such as straw, etc. If you wish to keep a blanket in the sleeping box be sure that it is taken out frequently, aired and dipped in a disinfectant solution. Not withstanding the old adage "a few fleas are good for any dog" we'll take ours without fleas, and a good way to avoid these germ carriers is to keep the quarters as clean as you would your own room.

Now as to the runway or ground adjacent to the kennel box: Dig this ground up and lime it good. Throw a little grass seed on this limed ground. A dog eats grass for his spring tonic. For the boys who have brick or cement runways, lime them and take a blow torch and burn the lime away. This bit of extra work will pay big dividends in less worms and healthier dogs.

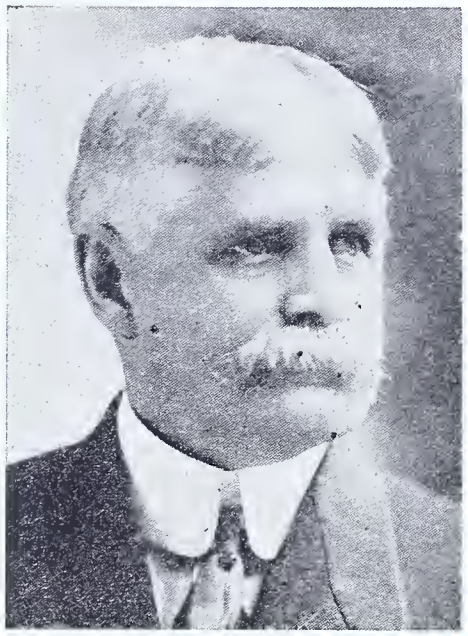
A word of caution. In exercising your dogs, avoid orchards and vineyards where spraying may have been in progress. This spray settles on the grass, your dog eats the grass and you have a poisoned animal on your hands. Arsenic is often the base for sprays and is certainly not recommended as an addition to my dog's diet.

Now that we have gotten their living quarters renovated, let's plan for keping our dogs in top physical shape during the hot weather. Every dog owner should provide himself with a dipping barrel. A good commercial stock dip should be used. By dipping once a week you will keep your dog free of fleas, keep the skin clean, which will tend to heal abrasions of the skin caused by scratching from heat irritation. You can usually avoid what is commonly called summer eczema by regular use of the dipping barrel during the hot summer months. Often the term dipping as referred to dogs is misunderstood. Do not submerge the dog in the dip solution. To do so will subject him to eye infection, etc. The proper procedure is to sponge the dog off, rubbing the solution into the skin, being careful to avoid the eyes and ear passages.—Doctor H. B. Prothero.

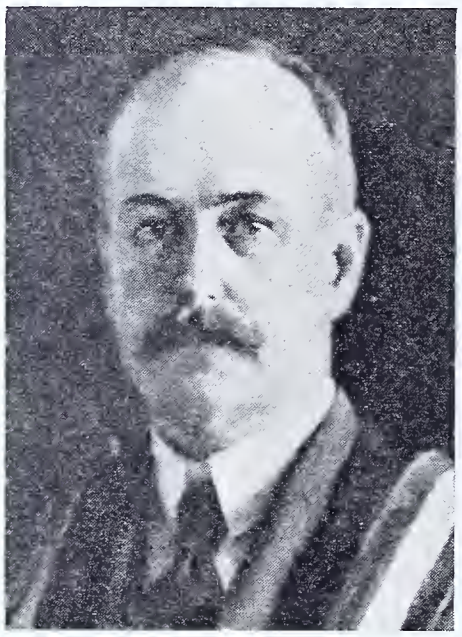
# MEMBERS OF THE PENNSY

**ALL THE PRESIDENTS, PAST**

**WILLIAM M. KENNEDY, Allegheny**
**Nov. 17, 1896 to Nov. 17, 1905**
**(Pres. 9 yrs.)**

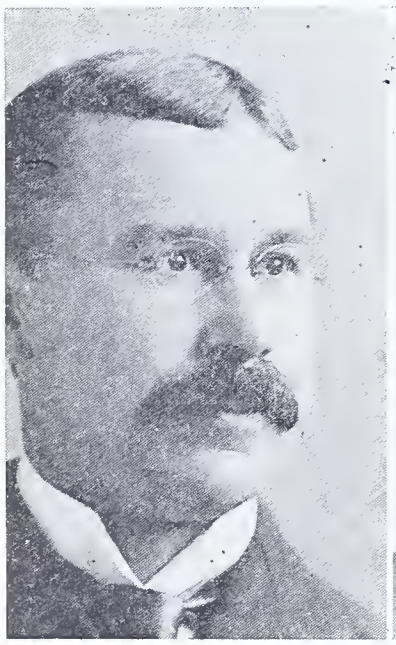


**JAMES A. WORDEN, Harrisburg**
**Nov. 17, 1896 to Nov. 17, 1910**
**(Pres. 5 yrs.)**



**DR. C. B. PENROSE, Philadelphia**
**Feb. 24 1899 to Dec. 21, 1922**
**(Pres. 12 yrs.)**

**JOHN M. PHILLIPS, Pittsbu**
**Nov. 21, 1905 to Nov. 17, 19**
**(Pres. 1 yr.)**



**HARLES HEEBNER, Philadelphia**
**Nov. 17, 1896 to Feb. 23, 1899**

**IRVING A. STEARNS, Wilkes-Barre**
**Nov. 17, 1896 to Feb. 13, 1901**

**E. B. WESTFALL, Williamsport**
**Nov. 17, 1896 to Mar. 5, 1902**

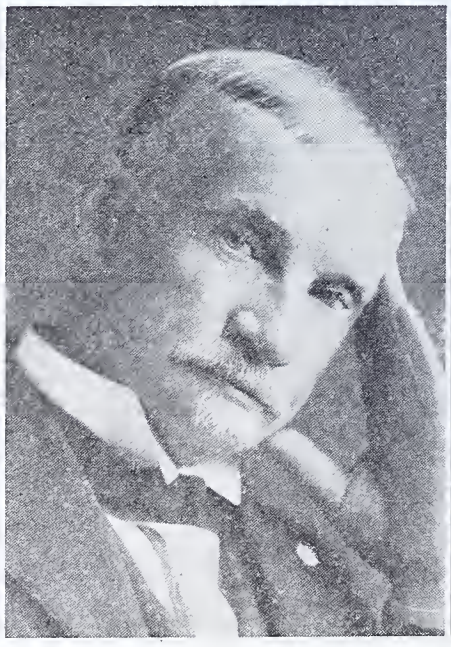
**COLEMAN K. SOBER, Lewisburg**
**Nov. 17, 1896 to Nov. 17, 1914**

**J.**
**Mar.**

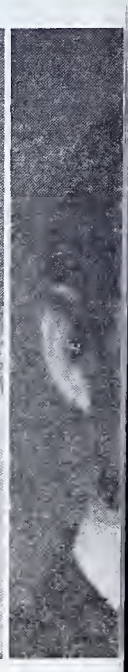
**W. B. McCALEB, Harrisburg**
**Feb. 8, 1911 to Mar. 20, 1924**

**JOHN S. SPEER, St. Marys**
**Dec. 16, 1914 to Jan. 24, 1918**
**July 7, 1919 to July 23, 1925**

**GEORGE D. GIDEON, Philadelphia**
**May 19, 1915 to Nov. 17, 1919**



**THOMAS MARTINDALE, Philadelphia**
**Mar. 23, 1916 to Sept. 17, 1916**



**WIL**
**Jan**

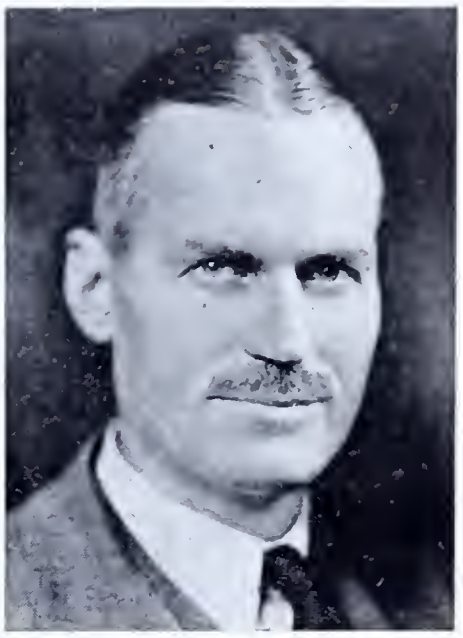
# NIA GAME COMMISSION

N, ARE SHOWN IN THE TOP ROW

. J. DONALDSON, Williamsport
D. 29, 1916 to Aug. 16, 1929
(Pres. 4 yrs.)

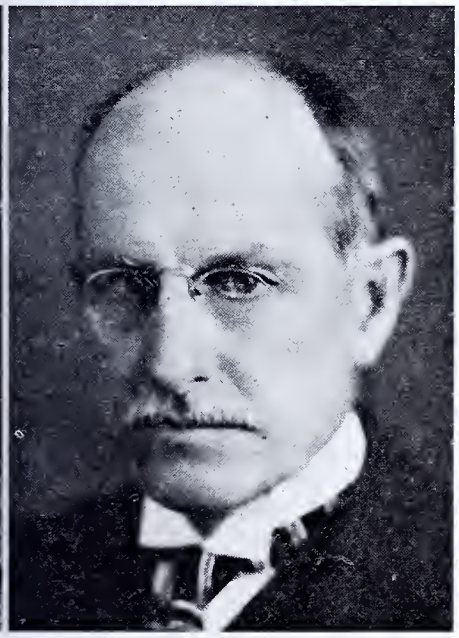
ADOLPH MULLER, Norristown
Mar. 20, 1924 to Jan. 31, 1935
(Pres. 3 yrs.)

ROSS L. LEFFLER, McKeesport
June 24, 1927 to Dec. 23, 1931
Reappointed Mar. 26, 1935
(Pres. 7 yrs.)

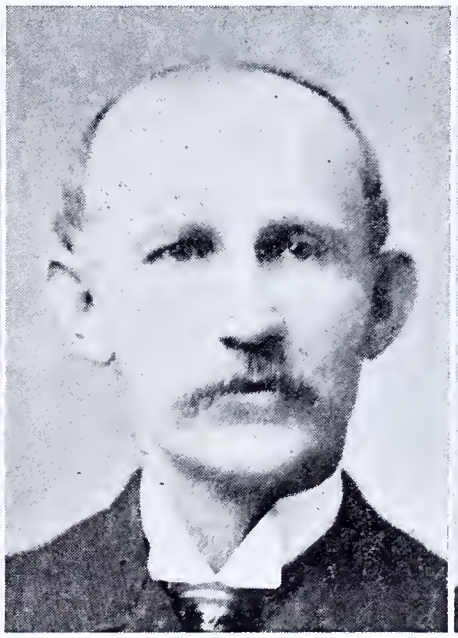


NICHOLAS BIDDLE, Bethayres
Feb. 11, 1935—
(Pres. 5 yrs.)

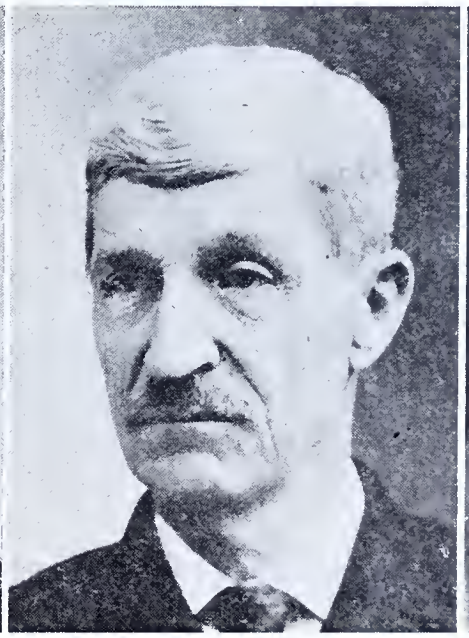
nier
. 1905



WILLIAM H. MYERS, Williamsport
Mar. 6, 1902 to Aug. 11, 1909



FRANK G. HARRIS, Clearfield
Jan. 31, 1905 to Jan. 19, 1908



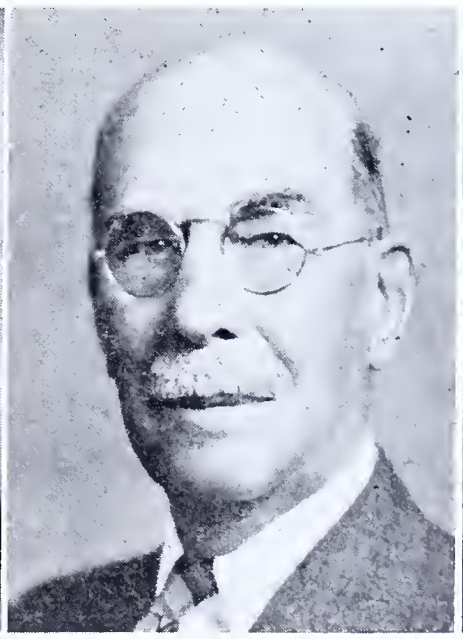
ARTHUR CHAPMAN, Doylestown
Jan. 20, 1908 to Jan. 5, 1916

LANING S. HARVEY, Wilkes-Barr
Sept. 17, 1910 to May 18, 1915

tsfield
. 1919

WILLIAM S. ELLIS, Bryn Mawr
Jan. 16, 1920 to Mar. 20, 1924

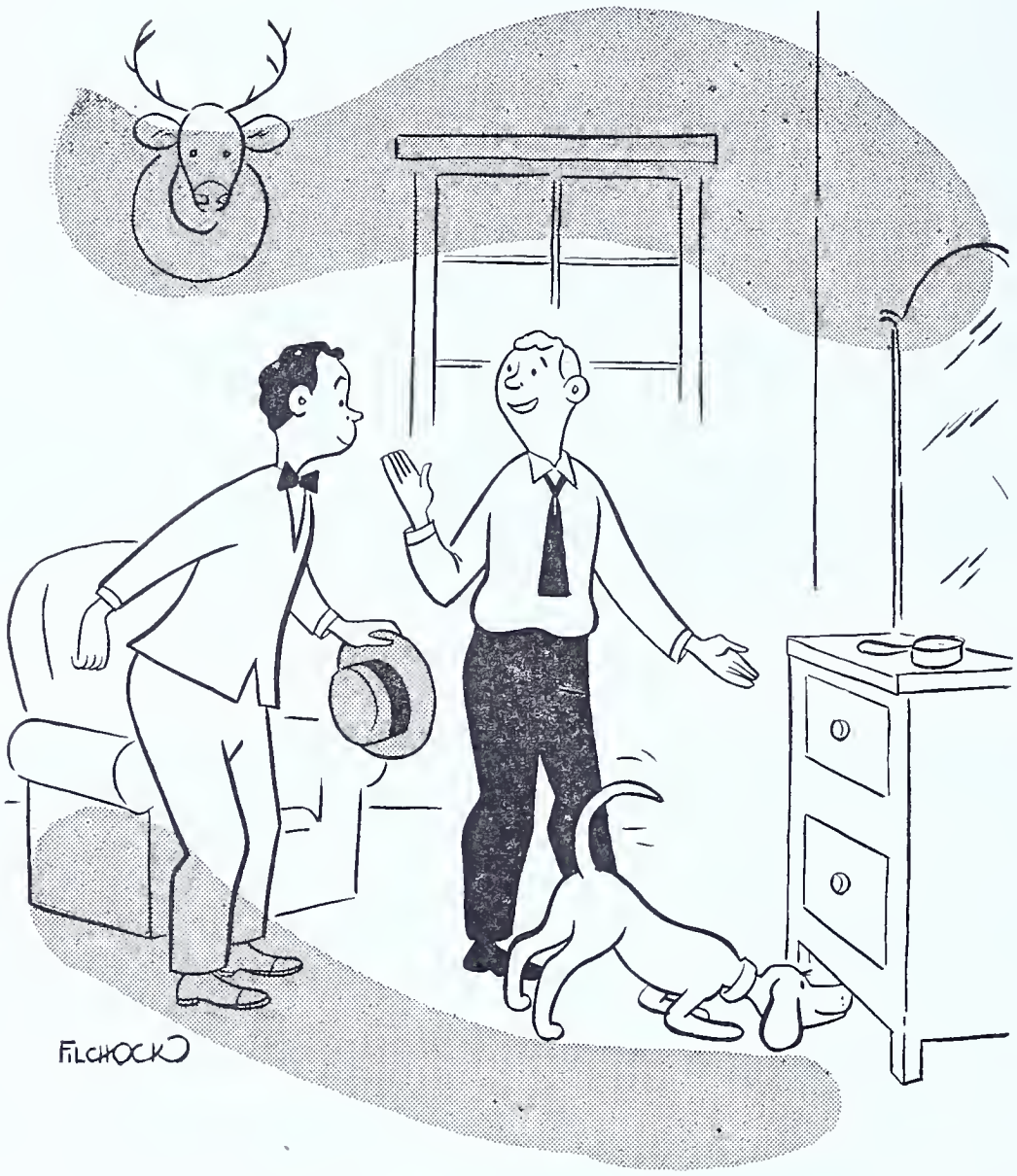
COL. HENRY W. COULTER, Greensburg
Dec. 21, 1922 to Mar. 20, 1924



JARED M. B. REIS, New Castle
Mar. 20, 1924 to Dec. 23, 1931

FRANCIS H. COFFIN, Scranton
Mar. 27, 1924 to Dec. 23, 1931

# THE QUIZ BOX




"He bunts rabbits during hunting season, 'coon or 'possum at night, night crawlers when I want to go fishing, and in between season's he's the best collar button finder in the country."

Q. When was the first open season held on ringneck pheasants in Pennsylvania?
W.M., Boyertown, Pa.

A. Our records show the first open season on ringnecks in Pennsylvania was from October 15 to December 15, 1902. There wasn't any daily or season limit that year.

* * *

Q. Was there a closed season on small game during the World War No. 1?
W.M., Boyertown, Pa.

A. Hunting seasons on small game were open as usual throughout World War No. 1.

* * *

Q. I know of a salt lick that has been established for deer near our camp. Does the salt block have to be removed from the lick during the open deer season?
A.B.S., Manheim, Pa.

A. There is nothing in the Game Laws to compel anyone to remove a salt block from a deer lick during the open deer season. The mere removal of the salt block does not constitute the removal of the salt lick. Through melting caused by rain and snow salt will soak into the ground surrounding the salt block and before a deer lick is completely destroyed reasonable efforts must be made to remove or cover up the surroundings that have become salted. Deer seldom use a salt lick after the first cool weather in the fall although they may frequent a "lick" through force of habit. We recommend the complete removal of all salt licks before deer season and suggest this be done early in the fall. In this way, mistakes may be avoided, for it is unlawful to kill deer at a "lick".

* * *

Q. What Pennsylvania birds are not protected by law?

A. Great horned owl, snowy owl, goshawk, Cooper's hawk, sharp-shin hawk, crow, blue jay, kingfisher, European starling and English sparrow.

* * *

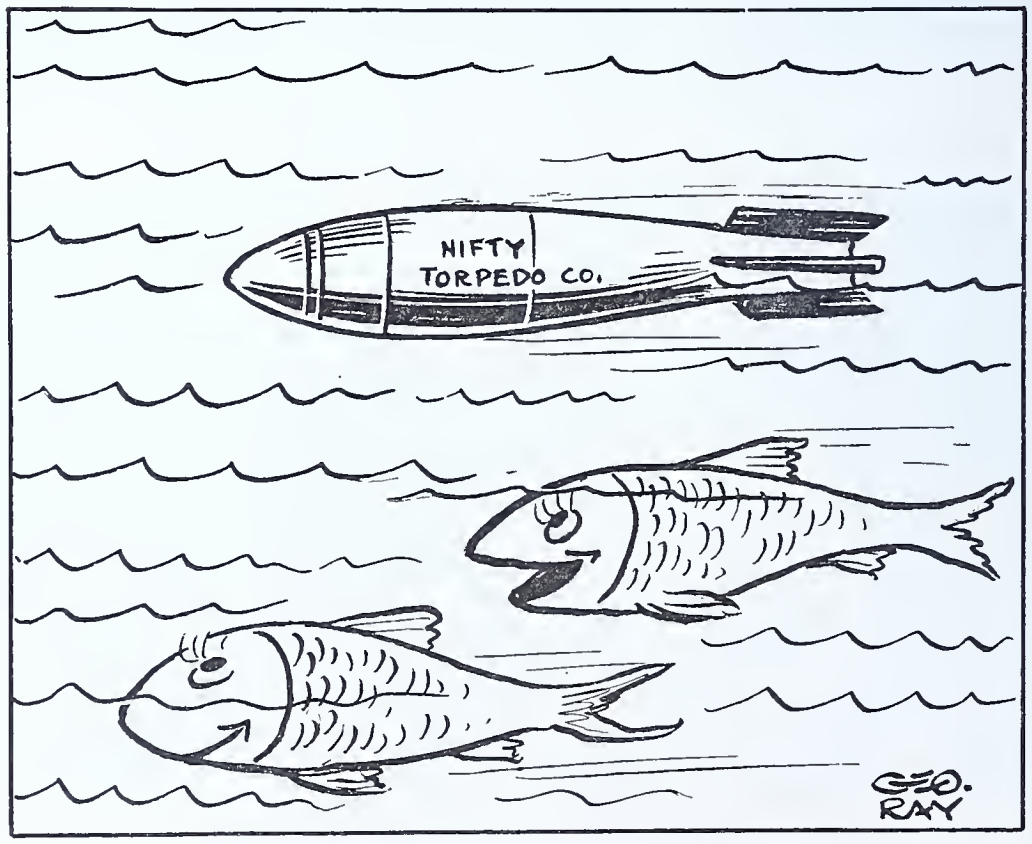
Q. In what year did it become illegal to trap bears in this State with steel traps? With bear pens?

A. The use of steel traps for the taking of bears was first prohibited in 1911. Bear pens and bear pits became illegal in 1915.

* * *

Q. Was it ever lawful to display your hunting tag on your arm?

A. Yes. From 1913 to 1919 the tags were worn on the arm. At that time the tags were of a treated cloth material. Regulations then required them to be displayed on the back of the sleeve between the shoulder and the elbow.




"He must be the Big Strong Silent Type. He hasn't spoken a word yet."

# CURRENT TOPICS

## NOTICE!

**We have just been advised by the agency handling newsstand sales of GAME NEWS that it would no longer be in a position to distribute our publication. This service will discontinue with this issue; consequently many readers will be disappointed when they try to buy a copy on the stands this month.**

**Under the circumstances we are asking all persons who receive the magazine through subscription to pass this information on to any of their spotrsmen-friends who have been purchasing GAME NEWS on the stands. They may wish to continue reading it, in which case we shall be very happy to welcome them as subscribers.**

The Blair County Game Fish and Forestry Association have been very active in Defense work since the entrance of this Country into the war, having sponsored and originated what is known as the First Rifle Company, Civilian Defense Police, Altoona, which is now composed of 150 expert riflemen, who are being trained by weekly drill practice, so that they will be prepared for any emergence that may arise through enemy invasion or local sabotage.

The modern rifle range on the association property in Riggles Gap is now being improved and placed in condition for the summer activities. A State-wide N. R. A. sponsored match was held on the range May 17, and the official State Championships will be held there early in August.

The association fittingly observed National Wildlife Week, by having members present talks on conservation and the showing of appropriate moving pictures to service clubs and school assemblies. The president "Bill" Templeton and Joe Parks gave the talks and presented the pictures.

"Open the window dear! It's a bit stuffy in here."

The association members are now busy transplanting trees, planting food plots and engaged in a general conservation program.

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Current officers of the Luzerne County Game and Fish Association are: Louis Ravina, president; Calvin Eckrote, vice-president; George Wilson, treasurer, and Howard G. Lentz, secretary. The club has been one of the most active units in the northeastern section of the state, and its program includes feeding game, propagation of ringneck pheasants, planting of trees, water snake and vermin contests, and game and fish stocking.

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C. R. Vogel, Secretary of the Tri-County Fish and Game Association writes that the above organization has passed a resolution to invest 100% of their 1942 dues income in United States Defense Bonds.

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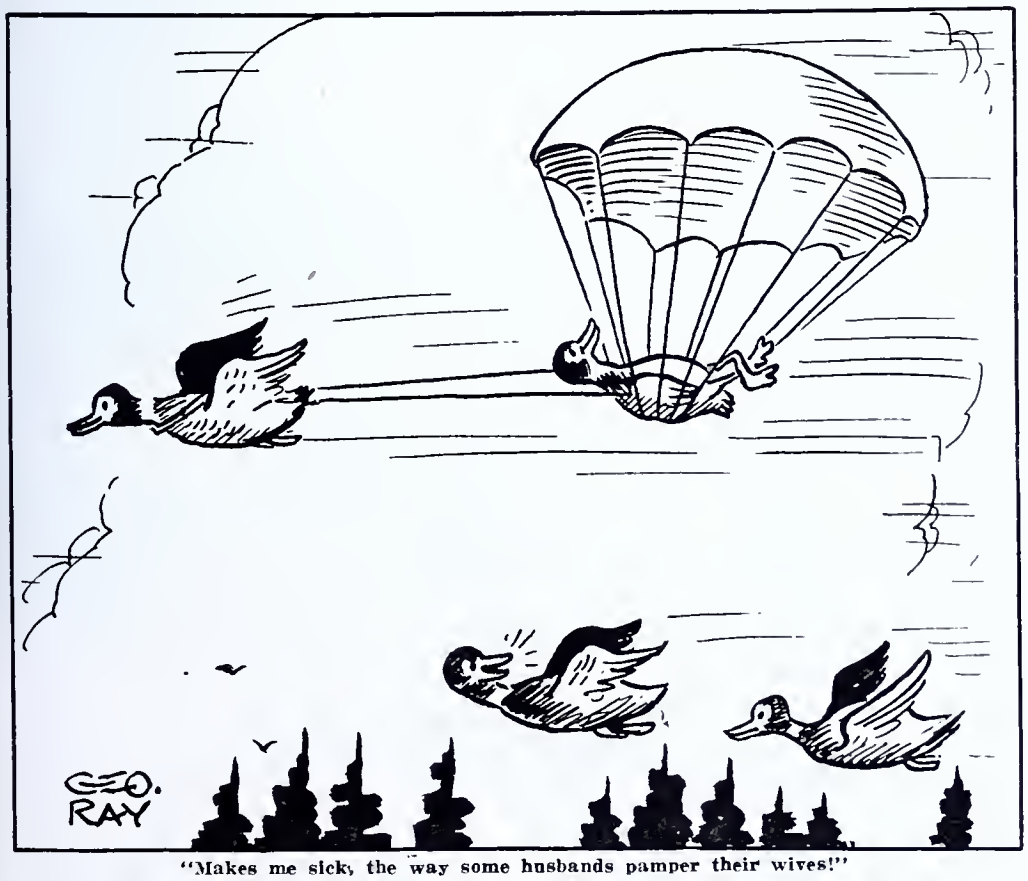
A scientist declares that fish are the only living creatures never troubled with influenza.. This is because of their ample opportunities for gargling




"Makes me sick, the way some husbands pamper their wives!"

# CURRENT TOPICS

Photo by Geo. R. Poellot

**Partly albino ringneck pheasant killed by C. L. Holman, Bridgeville, last season.**

## THE MAIL BAG

"I have been interested in our State Game News and the experience of some of the hunters. I get a kick out of many of the sporting magazine stories I read of both hunting and fishing. I think some of them need a kick. I hunted the gray squirrel when I was 10 years old back in 1870. I couldn't hold the old muzzle loading rifle up to shoot. With a rest I could knock a squirrel's head off every shot. For 20 years I used the old muzzle loader for all kinds of game. When I shot at a wild turkey it was mine.

In 1920 I went from Huntingdon County down to Fulton County to hunt squirrels. They were plentiful along the eastern slope of Sideling Hill Mountain where there were lots of hickory and shellbark nuts. My brother-in-law, his son and son-in-law went out with me. I had gotten my first shotgun, a Remington 12 ga. pump. We were near the farms at the foot of the mountain. My brother-in-law said there had been wild turkeys working there that morning. "They are working up the mountain," he said, "come on everybody, we will kill turkeys." I said "not me with a shotgun." He said "we all have shotguns." I told him I would stay with the squirrels and give them a dollar apiece for the turkeys they got. In about an hour I heard them shooting at the top of the mountain. In a couple of hours they came back. No turkeys.

"They told me the turkeys were in the red brush on top of the mountain, but when they had sneaked close enough to shoot—about 30 yards—the birds saw them and flew. That they had knocked three of them down and had spent an hour trying to find them. Had to give it up and come back without a feather. The wounded turkeys would hide under the brush and die. That is only a little bit of shotgun turkey hunting I could relate.

"I don't believe that more than 10 per cent of the turkeys shot with shotguns are retrieved; they simply hide and die for fox feed. Wild turkeys don't run or fly from what they hear, as deer do. It is from what they see. One hundred yards is a nice easy shot with a rifle at wild turkeys. What I have written is my honest opinion of 70 years of hunting and observation of methods used. Two years ago I gave my shotguns and big game rifle to my grandsons and got a new Stevens over and under .22 rifle and 410 shot barrel. The .22 long rifle hollow point cartridge is fine on all small game and will get a wild turkey at a hundred yards as easy as a .32 or 30-30 rifle."—A. R. Salkelk, Tarentum, Pa.

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Last year the Old Town Sportsmen's Association demonstrated its interest in the conservation program by trapping and releasing many rabbits, acquiring a special wildlife refuge, releasing 50 six-week old pheasant chicks which have apparently acclimated themselves in that locality, sponsoring an educational exhibit which was viewed by several thousand persons, erecting indoor rifle range which has stimulated much interest among its members, and conducting a conservation education publicity campaign which has been far-reaching in scope. Good work, Old Towners!

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When the new Hall of North American Mammals of the New York American Museum of Natural History was opened to the public Wednesday, one of the 18 glass-enclosed exhibits contained a mount of the world's largest Bighorn Sheep, donated by Dr. H. M. Beck, 68 West Northampton Street, Wilkes-Barre, Pa., a lifelong honorary member of the Museum.

The Bighorn Sheep, whose right horn measures 49½ inches along the curve and the left, 48 inches, both having a circumference of 16⅛ inches, was recognized by the Museum officials as the world's largest ever killed by man.

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William Keyes found on the west side of Table Mountain, California, the body of a four-point deer which had died as a result of a freak of nature. Its horns had grown around its mouth and nose in such a manner that it could no longer eat, and had starved to death.

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The nervous energy of the human body is nothing more than electricity, says a noted doctor. This diagnosis seems plausible as nowadays most articles of clothing are charged.

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Though you never spent a day in a college classroom, you have acquired the cream of a liberal education if experience has taught you to be kind, tolerant, and understandnig.

## CLASS REUNION

Turning back the pages of the years, 21 men and women returned January 4, 1942 to the Good Intent school in Letterkenny Township to indulge for a time in pleasant recollections of their school days there twenty years ago.

At the teachers desk stood William W. Britton, whom they recalled as the tall, lean young schoolmaster from Upper Strasburg they had learned to respect and love during the term of 1921-22 that he taught all eight grades in the one-room red brick building.

The reunion also attracted 24 visitors, including Samuel Sollenberger of St. Thomas, a pupil at Good Intent more than 50 years ago.

Britton who now resides in East Catharine street, as game protector of Franklin County, recalled that the school had an enrollment of 34 the year he spent at Good Intent, after having first taught for a term in Horse Valley.

Pleased by the large turnout despite bad weather conditions, Britton, following the reunion, expressed the opinion that an organization of former pupils might be formed to perpetuate the memory of Good Intent, soon to be razed as one of the buildings on the 21,000-acre tract the War Department has selected for an ammunition depot.

While virtually all his Good Intent pupils of 20 years ago have married, Britton recalled only one romance, among the boys and girls he taught there that had blossomed into marriage. The others found their mates outside the school.

In his ten years as game protector, Britton said he has been called upon to arrest only one of his former pupils for violation of the game laws. Britton's teaching career ended in 1926 after he had taught in the Upper Strasburg and Greenvillage grammar schools, in addition to the Horse Valley and Good Intent schools. He engaged in the insurance business before his appointment as game protector.

A commercial photographer was on hand to record pictorially the last reunion of former pupils of Good Intent School.

His former pupils joined Britton in reminiscenses of their days at the school.

Among the visitors were Mr. and Mrs. Joseph Rotz, patrons of the school in 1921, and Mr. and Mrs. Irvin Creamer, Pleasant Hall. Mrs. Creamer is a daughter of Frank Slyder, who taught at Good Intent 50 years ago and subsequently served three terms as county superintendent of schools.

John Pilgrim, janitor at the school during Britton's regime, also was on hand, and his experience in stoking the school furnace fire with Christmas tree clippings, highlighted the reminiscences. A burst of flame deprived Pilgrim of his eyebrows on that occasion. Pilgrim, who lives near the school, will remove to Guilford Springs.

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They build these modern automobiles so that five people can get into them with comfort, and ten if they are well acquainted.

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**The photos of the cub on the opposite page were taken my Delbert L. Batcheler.**

ELL! WELL! SO THIS IS A WAGON!

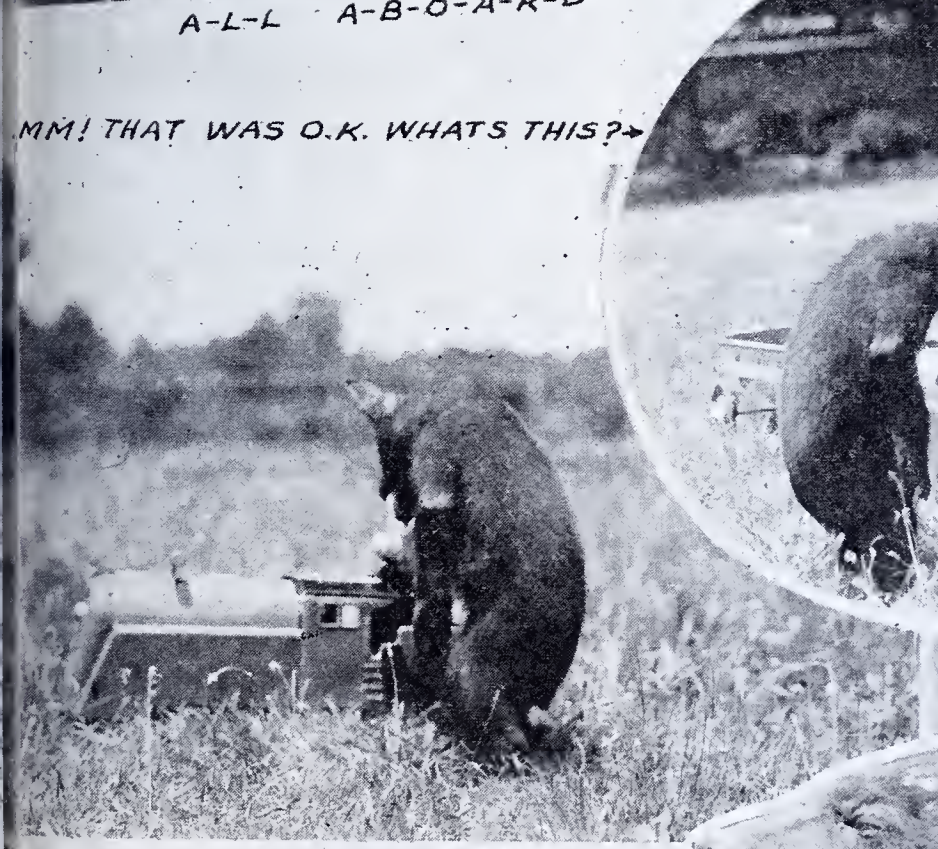
I THINK I WILL TRY ONE OF THESE MYSELF!

A-L-L A-B-O-A-R-D

MM! THAT WAS O.K. WHATS THIS?→

THESE CURVES ARE THE "McCOY"!

←HI-YA PAL! HOW'S ABOUT A LIFT!



BE WITH YOU IN A
IFFY.

WOW! WHAT A SPILL!

ICH! MY HEAD!
OLD WAY FOR ME
REAFTER.

# CURRENT TOPICS

Photo by John W. Warner, Indiana, Pa.
Members of the Southwest Division of the Pennsylvania Federation of Sportsmen's Clubs met April 26 at the summer cottage of President Ross L. Leffler of the Game Commission, along with Agricultural delegates, to discuss the farm labor problem and cooperate with landowners in supplying voluntary labor in emergencies in harvesting crops.

## FEDERAL OFFICIAL EMPHASIZES WILDLIFE'S IMPORTANCE IN WAR

Reminding game administrators that wildlife plays a more important role in winning or losing wars than most persons realize, Albert M. Day, Fish and Wildlife Service official of the United States Department of the Interior, recently urged that conservation programs be geared to aid war efforts to the maximum.

Clothing made of furs from wild animals aided the Russian soldiers during the German offensive in last winter's sub-zero weather, Day pointed out at the recent North American Wildlife Conference in Toronto, Canada. Rodent-borne typhus now raging over Europe, he said further, will have a profound influence upon Germany's war effort.

Positive contributions can be made through wildlife in the form of furs, a meat supply, and in keeping the people fit, he said. At the same time, Day cautioned against permitting basic stocks of wildlife to be raided, wildlife habitat to be unecessarily destroyed, and waters to be polluted. Liaison efforts with the War and Navy Departments and the War Production Board have produced excellent results in this respect, he reported.

Opportunities offered by the Pittman-Robertson program of Federal aid to the States in wildlife restoration can be used to resurvey trapping regulations and guarantee fullest utilization of the fur resources of this Nation without sacrificing conservation principles, he said. This is necessary since imports from China, Russia, and Australia that normally supply half of the $250,000,000 annual fur requirements are now cut off.

"Can we justify winter losses in deer and elk in many problem areas with a valuable meat supply wasting because the herds were not reduced through proper hunting seasons and bag limits to a size consistent with the available forage?" he asked. He suggested several remedies, including taking doe deer in such areas, and pointed out that the 135,000,000 pounds of wild game normally used in American homes in hunting seasons can "release sufficient beef, mutton, pork, and poultry to feed an army of 5,000,000 men for two months."

The Pittman-Robertson program is available to finance studies on which to base the better use of wildlife, he said, "so the administrators need not lack for technical assistance."

"Why not," asked Day, "set our national program for wartime conservation on the course of utilizing the resource to the fullest extent consistent with good management, in providing the sport and recreation to keep our people fit, and food, fur, and leather for home consumption, so that we can send that much more to our boys fighting on foreign soil and to our allies in this struggle?"

## THE GREAT OUTDOORS

**Just await'n midst the aspens**
**For the deer that never came,**
**List'nin' to Charlie's beller**
**And his halting steps, so lame.**
**Six long days we've hunted,**
**Two bucks our score to date**
**Yet, we've hope for others**
**Er'e the Season grows too late.**
**And yet, if no more we garner,**
**The joy of being in the pines**
**More than gives us recompense,**
**And cures our ills and whines.**
**The oaks, the beech, the poplars,**
**Their leafless limbs point out;**
**While the pines and hemlocks, best of all**
**Their greenness boldly flout.**
**Great gray rocks, precambrian born**
**Lie prone, midst glory such as these,**
**And thus for ages rest, as**
**Lulled by sun and breeze.**
**They decorate each mountain,**
**And add their wondrous size**
**To hill and dale,**
**As though to advertise—**
**The Glory of All Outdoors.**

**—W. R. Woodward.**

## WILDLIFE PHOTOGRAPHER DIES

Lorene Squire, wildlife photographer who won international fame with her beautiful pictures of wild fowl and other birds in flight, was fatally injured in an automobile accident at Pawhuska, Oklahoma, April 12.

Her photographs had won recognition throughout the United States, Canada and Europe as one of America's outstanding bird photographers. Her home was in Kansas and most of her pictures were taken on the broad prairies of that state as ducks, geese, swans and other waterfowl winged over on spring and fall flight.

Her work had appeared in many national publications and she won a certificate of merit in 1936 at the international exhibition of nature photgraphy in London.

## TEN GOOD TIPS ON GUNS

With arms factories turning over most of their output to the government these days it is becoming extremely difficult for sportsmen to buy shotguns and rifles. The only thing to do if you must have a firearm is to go into the used gun market. George Derbes of Pottsville offers these tips in picking a used gun:

First, make certain that the manufacturer is still in business. If he isn't don't buy that gun. Even minor repairs will be very costly.

Second, get a popular model. Do not purchase any discontinued type. Regardless of its condition, future repairs will also be costly—if you can get them.

Third, do not purchase even a good gun for an obsolete and rare cartridge. After the present war is over you will see many ammunition makers declare obsolete a great many old cartridges now listed in their catalogs, which are produced and sold in such small quantities that they are a heavy loss to the maker.

Fourth, do not buy a gun that needs even minor repairs. The seller may tell you that all you need is a firing pin or an extractor or something, and that the factory parts catalog lists it at half-a-buck. But can they supply it? If not, you have the headache of getting some gunsmith to make that part by hand at great expense.

Fifth, do not buy any gun that cannot be thoroughly inspected before purchasing.

Sixth, do not buy any gun that shows excessive wear and play in the action.

Seventh, do not buy a gun with a barrel that is rough, rusted or pitted inside.

Eighth, do not buy a gun that on the outside very definitely shows signs of abuse. It may be the same on concealed parts.

Ninth, do not let a "sales talk" affect your decision. Make up your mind about a gun on the evidence you see on the gun itself.

Tenth, do not buy a gun if the seller will not agree to your trying it out before buying. There may be a very good reason for his reticence—the gun may have some major defects.

On March 14, rabbit trapping agent Z. R. Leslie, Somerset County, caught a large 'possum in one of his traps. When we examined it we found her "pouch" full of young.—John S. Shuler, Game Protector, District No. 5.

# CURRENT TOPICS

## HUNTERS PAY $14,465,000 FOR CLOSE TO 8 MILLION LICENSES

Sportsmen paid $14,465,000 for 7,925,000 hunting licenses or combination hunting-fishing or hunting-trapping licenses during the year ended June 30, 1941, according to a compilation by the Fish and Wildlife Service, United States Department of the Interior.

The compilation indicates increases over the 1939-40 season when sportsmen paid out almost $13,000,000 for more than 7,600,000 licenses.

Michigan headed the "big ten" in the list of States with 718,281 licenses, followed by Pennsylvania with 678,688; New York, 568,675; Ohio, 542,674; Indiana, 386,164; Minnesota, 354,892; Illinois, 326,019; Wisconsin, 299,534; California, 285,123; and Washington with 227,399.

Fees paid by hunters in Pennsylvania topped all other States with a total of $1,522,840. Those in New York amounted to $1,058,980.

Federal migratory-bird hunting stamps, commonly called duck stamps, were issued to 1,260,810 sportsmen in the 1940-41 season, an increase of 149,249 over the previous year. The Federal stamps, at $1 each, are required of all waterfowl hunters over 16 years old, in addition to State licenses.

Although more than 2,000,000 persons were granted combination licenses authorizing trapping of fur bearers, many holding such licenses did not participate in trapping. By counting only one-tenth of the combination licenses as representing trappers, it is estimated that nearly 400,000 persons engaged in trapping, with estimated license fees of $450,000.

The 7,912,000 sportsmen who purchased the 7,925,000 licenses during the 1940-41 season spent nearly $192,000,000, according to estimates made by Guy W. Lane of the Service's Division of Federal Aid. This amount includes arms and ammunition purchased by skeet shooters.

These estimates included, in addition to the $15,875,000 spent for licenses and duck stamps, $35,000,000 for hunting clothing, boots, and blankets; $1,500,000 for boats, motors, and trailers; $15,000,000 for meals, lodging, and laundry; $2,000,000 for club caretakers and guide service; $10,000,000 for club and lodge improvments and maintenance; $2,000,000 for the purchase of hunting dogs; and $20,000,000 for their feed, care and training.

The retail price of sporting arms and ammunition, excluding tax, amounted to $70,000,000, while the Federal excise tax on these articles totaled more than $5,500,000.

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"Mr. Harrington of Albion observed the following strange occurrence: While visiting the spillway at the Pymatuning Lake, he was watching the sea gulls picking up small carp just beyond the railroad. Presently he saw a crow come in, light on a stump, and watch the sea gulls catching fish. It must have thought this was a pretty good way to get its supper so it flew out across the water and jabbed its head down into it, came up with a 4 or 5 inch fish, flew back to the stump and consumed it."—Game Protector F. H. Coffin, District No. F-1.

## COMPLETE PREDATOR CONTEST

John Beitel won first prize in the annual vermin-killing contest conducted during the winter months by the Luzerne County Game and Fish Conservation Association of Freeland. Beitel was awarded the following items: split bamboo pole, reel, line, fish basket, bait box and savings bank.

Other prize-winners were: 2nd prize, Marvin Eroh, $2 in cash, watch, pocket knife and savings bank; 3rd prize, Thomas Yefchak, steel telescope pole, fishing line, bait can, and savings bank; 4th prize, John Skuba, hunting knife, 1 dozen wet flies, and savings bank; 5th prize, Edward Petrick, flashlight, fish knife and savings bank; 6th prize, Bernard Rish, flashlight, fish line and savings bank; 7th prize, pocket knife, casting plug and line.

This was the tenth annual vermin contest staged by the club, and it was very successful. In the past ten years the following vermin were registered by contestants: 1899 weasels, 76 mink, 53 foxes, and 6 bobcats. In the contest which just ended April 1, the boys turned in 155 weasels and 3 foxes. For each predator registered, the club, as its part in helping to better game conditions, donates a free trap to the registrant. The contests are open only to young men and boys 18 years of age and under.

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## FENCING STREAM BANKS SAVES WILDLIFE

Farmers who fence streams running through their pastures can help improve game and fish conditions by fencing the banks, the Missouri Conservation Commission announces. This permits the growth of food and cover for wildlife, keeps water clear and cool and otherwise improves conditions for fish. In addition, it stabilizes stream banks. Small sections can of course, be left open as livestock watering holes.

## CONEMAUGH GROUP ACTIVE

The Conemaugh Valley Sportsmen Association, with its 133 acres of land and lake situated near New Florence in West Wheatfield Township, Indiana County, is a far-sighted sportsmanlike group. Its membership of about one hundred is drawn from Indiana, Westmoreland and Cambria Counties. Organized for over eight years, this club has owned its present farm for about four years. The grounds being located on "marginal" lands, the hunter finds good ringneck and rabbit hunting in the farmlands portion, as well as excellent grouse and squirrel shooting in the wooded section, which joins a large expanse of good-sized timber where deer are fairly plentiful.

Though the club property and nearby lands provided better than average food for wildlife, in 1940 with the aid of Game Protector Pinkerton and state agencies, the club planted many food bearing trees and shrubs in an eight-acre field on their lands, planning travel lanes and reserving a cultivated area for the growing of grains to supplement natural foods available: mountain ash, barberry, strawberry bush, winterberry, coral berry, butternut, chokeberry, hickory, hazel nut, arrow wood, chokeberry, black haw, bittersweet, hackberry, black locust, red oak, and white ash. Also, 3,000 American red pine seedlings were planted, partially about the field, partially on other good spots on the grounds.

In the summer of 1941 the association also entered into a Special Wildlife Refuge Project agreement with the Game Commission. About twenty acres were put under wire, including the eight-acre field described in the preceding paragraph. Feeding shelters were built inside and outside of the refuge area. This spring, the club will plant Pennsylvania Game Food and Cover Plot Mixture in its refuge, same as last year.

Photo by M. J. DeBerti

**A bunch of bees made their nest in between the weatherboard and the lining of the above camp. A bear, anticipating a meal of honey, proceeded to tear the camp apart and get his dinner. The picture was taken in Elk County between Loleta and During, Pa., in November, 1940.**

# WITH THE CLUBS

Photo L. F. Manning

**Delaware County Field and Stream Association's Club House receiving finishing touches.**

The flag raising ceremony at Brockport, Elk County, April 5, sponsored by the Horton Township Sportsmen's Club at its club house was a gala event. A large crowd turned out and many prominent speakers were included on the program. Those present at the ceremony which was made very impressive through a series of drills by the Brockway American Legion Drum and Bugle Corps were as follows: Rev. Father Herman of Holy Cross Church, Brandy Camp; A. D. Grasso, Brockway American Legion; A. J. Hanes, Pa. Federation of Sportsmen's Clubs, St. Marys; William Gaffey, President, Elk County Fraternal Clubs; H. B. Sorg, St. Marys; A. Willow, Johnsonburg; Dr. Kilgus, prominent sportsman of Brockway; James Colley, State Historian of the Veterans of Foreign Wars; William F. Smith, past State Commander of Pa. American Legion; William Daughenbaugh, President of the club had charge of the ceremony, and R. M. Morrow, Secretary of the club assisted James Carlini to raise the flag.

The club was organized on April 1, 1938 with the assistance of A. J. Hanes, former Vice-President of the Federation of Sportsmen's Clubs, and Game Proetctor E. L. Shields. It maintains its own game refuge, conducts an extensive game feeding and game food planting every year and makes numerous cash contributions for local welfare. The club has bought $500.00 worth of Defense Bonds to date and expects to purchase $1000.00 worth before the end of the year. Every member leaving for military service receives $5.00.

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The Blaine Hill Hunting Club, Elizabeth, Pa., is an industrious group of big game hunters which has its camp headquarters near Oleona. But, whereas many clubs of this kind are only active when the season is on, this bunch of boys carry on conservation programs the year round. There's only 17 of them but what they lack in numbers they make up in action. Two have recently been inducted in the armed forces.

Over 400 enthusiastic sportsmen and their wives attended the Fourth Annual Banquet of the McKeesport Sportsmen's Association on Tuesday evening, April 14, in the First Presbyterian Church of that city. Guest speakers included Hon. Ross L. Leffler, President of the Game Commission; J. Allen Barrett, lecturer, Fish Commission; and Seth Gordon, Executive Director of the Game Commission.

Guests included Hon. Frank A. Buchanan, Mayor of the City of McKeesport; Senator William D. Mansfield, McKeesport Daily News; Robert Miller, President Allegheny County Sportsmen's League; Hon. J. M. Critchfield, member, Fish Commission; Hon. John M. Walker, State Senator; Hon. William J. Yester, State Representative; Hon. Thomas J. Heatherington, State Representative; Rollin Heffelfinger, District Supervisor, W. C. Ryder Game Technician, Ralph Liphart, Game Protector, and Robert Parlaman, Game Protector employes of the Game Commission.

## WALTON LEAGUE OPPOSES FIREARMS REGISTRATION

A resolution adopted by the Izaak Walton League of America on March 28, during its 20th Annual Convention, expressed strong opposition to efforts being made by certain legislators, state and federal agencies and others to compel registration or requisitioning of personal firearms in the name of National Defense. In support of its stand the League quoted from the second amendment to the Constitution of the United States as follows: . . . the right of the people to keep and bear arms shall not be infringed."

The resolution states the League's belief that measures for the registration or requisitioning of firearms "are inimical to both personal and national security, and would merely play into the hands of subversive elements by disarming the citizens."

The League recommended that pressure for public works be ended for "the duration" and that post-war efforts be planned for their long-term value to the Nation rather than for temporary local advantage. It named pollution and erosion control, reforestration and similar conservation measures as logical works for inclusion in the post-war program.

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The woodchuck, long the victim of a bounty system in many counties and townships of southern Michigan, is now classed as a game animal because of the good work he does in digging burrows which later are occupied by rabbits and other game. This summer, for the first time in the history of Michigan the woodchuck will enjoy the protection of a closed season.

Photo John C. Wetzel

**Five stray dogs killed on Keystone Mountain near Locustdale by Luther Kehler and Lewis Eistes of that town. They were alleged to have attacked certain individuals, and Mr. Wetzel, Deputy Game Protector who submitted the photo, said that bones, rabbit fur, ringneck pheasants, and other remains were found around the den. The dogs are hanging at the entrance of the den.**

## WALTONIANS MEET — ELECT

Harry W. Stark, of the York chapter, was elected president of the Pennsylvania Division of the Izaak Walton League of America when the state sportsmen conducted their 19th annual convention meeting in the Berkshire Hotel at Reading. Stark succeeds Dr. Arthur W. Henn, of Pittsburgh, who presided at the convention.

The Berks County host chapter was honored with a high office when Ralph E. Walley, of Wyomissing, was elected secretary of the state group. The three new vice presidents are Mahlon F. LaRue, of Shillington; John L. Carey, Pittsburgh, and Hamilton C. Connor, Jr., Philadelphia.

Directors elected for the fiscal year are T. E. Williamson, Oil City; Dr. L. W. Moore, South Chester; Dr. W. P. Walinchus, Mahanoy City; Hope Dalish, Fairmount, and Ernest Hibbard, Delaware County.

Speakers included Kenneth A. Reid, National Executive Secretary from Chicago, and Seth Gordon, Executive Director of the Pennsylvania Game Commission from Harrisburg. Each stressed the fact that the Waltonians should keep outdoor opportunities at least at their present level, if not improved, in preparation for the return of Uncle Sam's boys from the fighting front.

Dr. W. H. Moore, of Philadelphia, spoke on polluted streams, and their proven effect on the health of the public.

The state legislative committee, headed by LaRue, passed a resolution which proposes to give the Pennsylvania Fish Commission the same authorities and powers now possessed by the Game Commission. The resolution, among other things, would have the Fish Commission appoint its Executive Director, as is done by the Game Commission, instead of having the Governor of the State make the appointment.

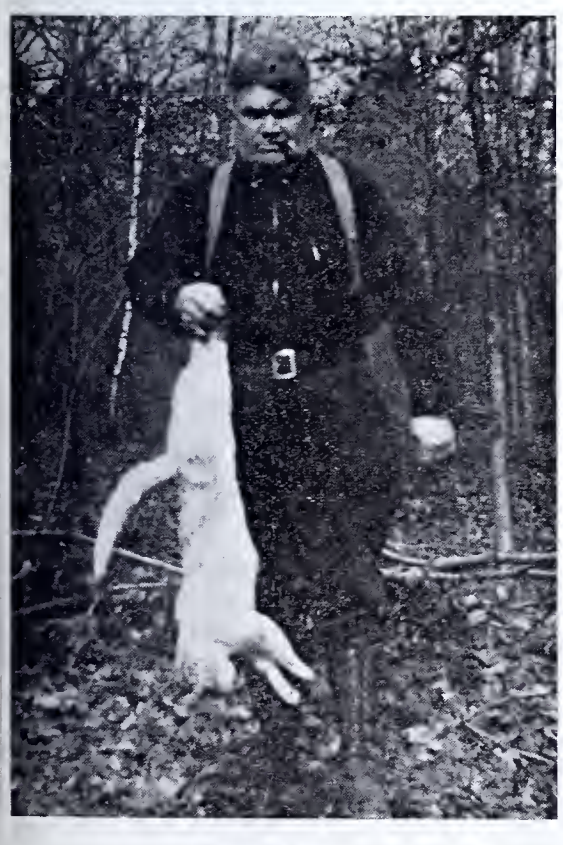
Photo Reading Times

**Harry W. Stark, extreme left, elected president of Pennsylvania Izaak Walton Leaguers at the state convention of the sportsmen at Reading, receives congratulations after the election. Left to right are: Stark, who is a member of the York chapter; Albert E. Holl, of Media, state treasurer; Kenneth A. Reid, of Chicago, national executive secretary; Seth Gordon, of Harrisburg, Executive Director of the State Game Commission and former conservation director of the national organization, and Ralph E. Walley, Wyomissing, who was elected state secretary.**

Another resolution, to revise the dog training rules which were first formulated in 1921, was tabled for further study. The perennial problem of stream pollution was given considerable discussion, and was referred to the incoming officers for further study. A motion was passed authorizing Secretary Walley to write to the Governor urging him to fill the Commission's present three vacancies with qualified sportsmen as soon as possible.

Vernon L. Hassler, of Springmont, headed the nominating committee for state officers. Other committee members are Dr. Arthur W. Henn, Pittsburgh; Dr. L. W. Moore, South Chester; Dr. J. D. Tuckerman, Delaware County; W. J. Meyers, Lebanon; Jacob Schaeffer, Schuylkill County; T. E. Williamson, Oil City; J. H. Coffman, York; P. G. Platt, Media; Oscar A. Becker, Reading, and Joseph D. Hiestand, Philadelphia.

More than 50 Waltonians were registered for the convention. Thirty members of the Berks County chapter attended, while other delegates came from the Pittsburgh, Connellsville, Delaware County, Philadelphia County, Lebanon County and York County chapters.



**Large stray house cat killed by Joseph Silvasi, Jr., President Sportsmen's Rod, Game & Gun Club, West Hazleton. Says Mr. Silvasi, "This cat had been a menace to the wildlife in Honey-Hole Valley of Dennison Twp. Every time I visited the game-feeders I noticed cat tracks in the snow and was determined to dispose of the animal. I was on the alert and kept a constant lookout for the intruder until I finally caught up with it."**

## STATE FOX HUNTERS MEET

The annual meeting of the Pennsylvania State Fox Hunters' Association was held in Harrisburg on Saturday evening, May 2. There were about fifty representatives of the various fox hunting groups throughout the state present.

No resolutions in regard to existing or proposed legislation were offered but it was decided that an attempt would be made to have the existing dog law changed so as to give valuable dogs more protection. It was felt that all owners of sporting dogs as well as pets would welcome such a change.

The Association will hold its Field Trial this Fall in York County with headquarters at Farm Grove, York County. The date will be the week beginning October 26.

Seth Gordon, Executive Director of the Game Commission gave a very interesting talk with a few timely remarks on the condition of the times, the responsibility of the Game Commission to all branches of sport, and the special effort which was being made this year to cooperate with the hunters who are in the service or in defense work. He stated that Pennsylvania was big enough and varied enough to accommodate all classes of sportsmen but stressed the point that tolerance of one group toward another was very necessary. He agreed that the present dog law needed further improvement and offered his help in this matter.

The following officers were elected for the year 1942-1943: Eli S. Grable, Washington, Pa., President; E. Guy Kekner, New Bloomfield, Pa., Vice-President; R. M. Hutchinson, Lancaster, Pa., Secretary; W. H. Webster, Waynesburg, Pa., Treasurer.

The directors include: R. L. Watson, Walter J. Shearer, Dr. F. S. Birchard, Joseph Darlington, Dallas W. Coplin, D. R. Clark, Gilbert Mather, Joseph Darby, Ehrman B. Mitchell, Plunket Stewart, Mortimer E. Fuller, George B. Beglin, O. J. Shriver, J. Calvin Turner, O. V. Titus, William Gipe, J. M. Fuller, Charles Lemmon, Thos. W. Martin, William Arison, Dr. Louis N. Robinson, Gaylord Carpenter, Milton Hankins.

# Neophytic Shadows Along the Buckline

*Continued from Page 9*

Photo by Truman Benson

**Photo of Mrs. Stanley Foote, Susquehanna, R. D. No. 4, with buck she shot last hunting season near Great Bend, Pa.**

But before the opening of the season I got the fever for a different gun and traded it in for a new .300 repeater, and thought I was ready to pop off most anything legal that showed itself within reasonable distance for a neophyte. But my luck was—that I did not happen to be in the right place at the right time during the whole of that season; and I had no shooting opportunities, except one of several hundred yards, which I missed.

During the closed season I read the sporting magazines carefully and was led to believe that my new .300 rifle should have one of the widely advertised scope sights if I were to get a deer the next open season. So a sight was purchased after much detailed study as to the merits of the various makes (and my bank balance, too)—for I wanted to be equipped to nip in the bud the possibility of loss due to extra long shots. The gun was fitted with the new scope sight, sighted in at 100 yards, confirmed by the most expert marksman I could secure, and was in such good shape that I could go through the black about every time at this distance on the range.

However, later reading and previous influences from successful hunters, led me to believe that a good gun, in the hands of a "good" hunter, should also have a good sight of the peep variety. So that, too, was purchased and installed and properly sighted; and some careful practice work was done, with results about equal to that done when using the scope.

Then came December 1st and the open season on deer, and off to the woods we were for our hunt. The first several days made provision for bucks, and the last few days for does in certain counties. Plenty of does were seen during the buck period, but when doe days came the does seemed to disappear as by magic. I had as my companion on the next to the last day a graduate druggist, an enthusiastic young hunter in the fifth year of his deer hunting experience. We lodged over night five miles from where we planned to leave our car and enter the woods. I remarked to the good woman who had lodged us, "I must get a deer today—this is my third season hunting deer—for if I return home this time without a deer my family will 'razz' me to death." "Only your third year?" said she, "Don't worry about that. Why, my husband has lived here in the deer country all his life, has hunted every year, and hasn't shot a deer yet."

That encouraged me; and we were shortly at our shooting posts, back in the mountains two miles from our car, in another section of the Allegheny National Forest. A beautiful covering of snow three or four inches deep had fallen during the night, and the whole territory for miles around was indeed a dream picture. Many other hunters had located in the same neighborhood, and as it began to get light enough to see many of these men were visible on their watches on three hills visible from our locations. My buddy took his place where a small stream flowed into a much larger one. I had gone farther up the hill and located. The seven bells of the morning had scarcely sounded when shooting began and could be heard over this large rugged terrain, up and down stream and over and across the mountains.

I had acquired when young the habit of roaming widely when berrying and a similar habit seems to be with me in my hunting experiences. No luck! and an hour or so found me leaving my stand. I struck up hill through the low woods, snow from the trees showering me at every move I made. I came out at the upper end of a ravine where a large gas main leads over the mountain. There I decided to stay and build a fire, and w-a-t-c-h. When my fire got going and I got my snow wet gloves to drying I found myself carefully examining my rifle sights; and to my great distress, found the aperture disc in my peep sight had been lost in coming through the brush; and since I had been compelled to remove my scope sight on account of darkness and fog during the first days of the season, and I had not yet replaced it, I had to fall back on my open rear sight.

But this open rear sight, also newly installed, had not been given much attention because of the superfluous supply of other and more modern sights on my gun; although I had adjusted this new open rear sight to a thread carefully drawn from the peep to the front sight. But a single test satisfied me as to the accuracy of this sight and I decided if I saw game I could make a kill at a reasonable distance. I hunted slowly for about two hours as I moved around and back to the point where I had left my partner in the morning. I saw nothing except a few tracks.

Upon arrival at my partner's stand I found he had company—a friend who had arrived unexpectedly from afar. They related to me their experiences of the day: My pal had seen a deer across the creek, bringing him down with his .32. He started for the deer but it got up and he shot several times, bringing it down for the fourth time before he caught up with it. When about to claim his deer another hunter shot into it while it was on its knees, knocking it down, tagging and claiming it. No prolonged argument here by my pal. Going back to his stand he and his friend later saw several deer coming down the slope across the larger stream. As the deer advanced toward them each man picked out his deer and at the opportune moment shot, bringing both deer down. When they approached the deer that had been shot with the .32 it got up and ran and another shot could not be made; but the other deer, shot with a 30.06, was down for the finish. As they approached to dress this deer two hunters, speaking very broken English, thrust their rifles in these men's faces, threatening to shoot them if they knifed the deer, claiming it was theirs. These men had not shot the deer, but only a foolish man, of course, would have proceeded under the threat. So they stepped back and left the place, and the deer, to them. The license number of the one hunter was securd.

Seeing that these friends were having their own troubles, and after taking a drink of their hot coffee and another portion of my own lunch, I started off, knowing that visiting is not conducive to successful deer hunting. I had said to them, "I think that after tomorrow there will be a good rifle and a lot of other hunting equipment FOR SALE." But where would I now locate for the remaining two and a half hours of this day, the next to the last day of the season? That was my present problem after my day's meanderings. But I almost unconsciously started up the very same path I had traveled at seven o'clock that morning when I had left my partner there at his stand.

# PENNSYLVANIA WOODSMEN

*Continued from Page 11*

bring them closer to the great God who has created all nature. For deep in some wilderness one can learn much about people and life. Nature is like a book—a book that has many chapters and contains much knowledge. It is a book that I have seen children read with ease, while many brilliant men have stumbled and fallen over its lessons.

Our group is small. That we do not deny nor are we ashamed of it. We have seen trees that have been blown over because their roots were not formed well enough to hold the branches and limbs. That is why we're not interested in expansion as yet. Whatever we get, or whatever we plan to get, we want nothing but the best. We are not hunters. We have nothing against hunters. It s just that it may be sentiment or that we don't have time. I think that the biggest kick hunters get out of hunting is not the killing, but the geting out and roaming around in the woods.

In conclusion I might say that this organization is something new based upon an ideal. It has been founded upon the failings and falterings of other organizations. Perhaps this job is too big. That remains to be seen. However, if this organization is destined to die, I assure you it will die fighting! Tho but little over a year since it was founded, already boys have learned lessons from it and through it that will remain with them as long as they live. Thus far no one can say "It was founded in vain."

# Neophytic Shadows Along The Buckline

*Continued from Page 26*

When I had gone up that path about a hundred yards, or just out of sight of the men, I stopped, looked over the territory across the creek on the slope of the mountain, hoping to see a deer. But no deer was in sight, to me. Another hunter passed, we exchanged greetings, and I moved up the path some fifty feet to a point where I could see more of the territroy over creek. The standing here was rough, so I jiggled my feet to more solid footing. Then I began to scan the mountain side very carefully; and lo, there, coming down that slope, at a speed I had scarcely before seen, directly toward me, was a fine deer.

I leveled on him the only sights my gun had left; those much criticised and depreciated ones, which in our day are commonly called "iron sights". But I kept them on him and allowed him to come on in my direction just as far as he would. I was looking over a rear sight with a white diamond pointing upward back of the notch, and a front sight with a ⅛" gold bead. But what were these sights compared with the good scope I had removed after the first days of fog and darkness, and the rear peep sight that had so recently and so cunningly removed itself? But I held these sights on him, for they were all I had left, and my only hope to support a huntsman's honor. Then, as this deer came on toward me, he seemed to turn that head slightly, indicating that he was about to cut some fancy dido there on the stage of that mountain side for my own particular grief. "Bang!" Reloading for a second shot! But there lay my deer, on a level bench of that mountain; broadwide toward me was he.

Then I wondered: 'Which hunter on the other side of that creek will get to him first, before I arrive, as in the case of my friends?' I must get to him quickly! But how would I know where he would be when I had descended the hill, crossed the creek and scaled the opposite side to him, a distance of around 200 yards as the bullet from my rifle had gone? I must have a definite mark by which to locate him in that rugged territory overstream. A three cornered rock seemed to suggest itself as a sufficient mark and the deer would be just to the left when I found it. Then it was a race; to get him before some other fellow had tagged him. Down that hill, over the creek, and up the other side to my rock and my deer; in a jiffy, if possible!

But when I arrived, there was a rock but no deer. Had someone already dragged him off as I had feared? Or had the critter himself jumped up and run away during my marathon? I looked back—down the slope—to the creek. No! I was not far enough up hill. There! There was another rock, and that was my rock, about twenty-five yards higher up. I ran up there; and there, too, was my deer. His head was down between his front knees. Was he out? I was ready if he was not out. But I quickly discovered his death had taken place in the split part of that second from the time when that .300-190 grain measure of lead had left the muzzle of the rifle; for it had entered his skull just two inches behind his right eye and penetrated his head, coming out back of the left ear, making a perfectly clean kill with the wound scarcely apparent. He had not even skidded on that snow covered slope, but had dropped the very moment when and where the bullet had struck him with the tremendous shock remaining, from the more than a ton of energy at which it had left the muzzle of the barrel.

Then, I believe, I got "buck fever"; for when I drew my knife to dress that beautiful animal—the first I had ever shot—I had to stop. I just could not do it—at least alone. I needed help. Then I began to think (as the "fever" reduced) of what had been happening in the last ten minutes or so, and I remembered about my pals and that they were across the creek. I immediately called, "H-e-l-l-o, Chuck!" "Hello! came the reply. "I got him!" "Be right over", said he. They were soon up the hill, and this druggist friend, a good anatomist, soon had his knife in my deer; but this time without a threatening gun pointed toward him, as only a short time earlier that day.

In another ten minutes we were taking this prize like a sledge over the snow and down to the creek, where I rinsed him out in the sparkling mountain stream as I crossed over with him; and I was already on my way to our car two miles below; while these friends went again to their stand for the remaining two hours, in their final effort of the day to get a deer as their trophy of the season's hunt.

"And so", said my friends, as I related my story how I got this buck, "with all your newly installed and modern sighting equipment, you brought him down with the good old common front bead and open rear sights! EH?" To which (pleasurable sarcasm) I hesitatingly, but willingly, replied, in the present day vernacular, "O-YEH."

But the next year, at a spot about eighteen miles from where I shot this first deer, I shot a buck the fourth hour of the open season. "And so", said my friends again, when they saw me home so early with my deer, "with all your planning for many days in the woods your luck came too early this year; and your hunting fun is now spoiled for the balance of the season." To this I also replied with "O-YEH", but with the additional and necessary words, "but that too, is unusual—for me."

Thus I found that getting my first two bucks was quite like the report commonly circulated about making one's first and second million (bucks—$$)—that the first is hardest, but the second is much easier and quicker to secure.

Prize head bagged by G. Edward Elwell, Jr., Commander-in-Chief, Caldwell Consistory, Bloomsburg.

# Cottontail Rabbit Nests and Nestlings

*Continued from Page 7*

Photo by Leo A. Luttringer, Jr.

**In hiding.**

nestling, and daily litter averages were then computed from these figures. Tail and total-length measurements were difficult to obtain on live animals and were discarded as practical indicators of age because of the probable errors. The ears of very young cottontails lacked the development necessary for exact measurement. Tarsal length proved a satisfactory index of age. This measurement was easily and quickly made, and showed little variance among individuals of the same litter. Although all available nestlings were measured, because of nest destruction, a complete series of measurements was obtained on only 19 litters. The daily tarsal-growth rate of all litters, without exception, was approximately 2 millimeters.

A working scale to determine ages of nestlings and the actual measurements on which it is based are presented in Table 6. Although the smallest tarsal measurement for an entire litter averaged 20.3 millimeters (Table 5), these cottontails were presumably at least 10 hours old. If this was true, the tarsal measurement at birth was about 19 millimeters or less. The tarsi of seven embryos averaged more than 16 millimeters.

In no case were the eyes of an entire litter found open on the same day, and usually a period of 2 days was required for the complete eye-opening of an individual. The eyes of some nestlings began to open on the sixth day, when the tarsal measurement was approximately 31 millimeters; more often 7 days were required before these organs began to open (Table 6). Usually the eyes of the entire litter were completely open by the eighth day.

### Parental Care

Nestling cottontails usually received little maternal care, as no female was ever known to remain with her nestlings except at feeding periods. Guardianship of the nest apparently varied with individual females. Although each nest was visited daily and at varying times by the observer, generally speaking, adult cottontails were not seen in the vicinity. At a few nests however, the female was always seen and at others she

**TABLE 6**
**Comparison of Age, Tarsal Growth, and Development of Nestling Cottontails**

| Days old | Actual tarsal measurements | Remarks | Working scale to determine ages |
|---|---|---|---|
| At birth | mm. | | mm. |
| 1 | | | 19 |
| 2 | 22.5 | | 23 |
| 3 | 24.5 | | 25 |
| 4 | 26.7 | | 27 |
| 5 | 28.4 | | 29 |
| 6 | 30.0 | Eyes begin to open | 31 |
| 7 | 32.3 | Eyes begin to open, or are open | 33 |
| 8 | 34.2 | Eyes open | 35 |
| 9 | 36.0 | | 37 |
| 10 | 38.0 | | 39 |
| 11 | 40.0 | | 41 |
| 12 | 42.3 | | 43 |
| 13 | 44.7 | | 45* |
| 14 | Had left nest | | 47* |
| 15 | | | 49* |
| 16 | | | 51* |

*May leave nest.

was often present. When the female maintained a close watch over the young, the squeal of a nestling (usually resulting from the weighing or measuring procedure) often caused the mother to leave her form and approach within a few feet of the observer. One female ran to the nest three times while the young were being examined. Trippensee (1934) has cited examples of cottontails responding to the squeals of the nestlings in order to defend them from various predators.

Proof that female cottontails move their nestlings to other localities is yet lacking, although evidence implying that this occurs has been obtained several times. Desertion appeared unknown to the cottontails, for the practice was suggested at only one nest—and here it appeared more likely that the female had been killed. Although the following situation was exceptoinal, it showed the amount

**TABLE 7**
**Causes of Nestling Mortality in 1940**

| Mortality factor | Number of nests destroyed |
|---|---|
| Mowing | 2 |
| Excessive water | 2 |
| Undetermined mammal | 2 |
| Undetermined | 2 |
| Cat | 1 |
| Man | 1 |
| Plowing | 1 |
| Total | 11 |

of disturbance a cottontail endured to rear her young. A nest containing 2 to 3-day-old nestlings was found between a path and a large holding pen at the Loyalsock Experiment Station. The nest was about 1½ feet from the edge of the path, which was in continuous daily use. The young were measured and weighed daily by one of the writers and were just as frequently disturbed by other workers. Three days after the nest was found, a ditch—2 feet wide and 4 feet deep—was dug where the path had been. Before the construction of the ditch, a stake was placed at the nest and the workmen were informed of the nest's presence. For 10 days the female crossed the ditch to get to the nest, and she attended the young until they left.

### Nestling Mortality

Farming operations, mammalian predators, excessive water, and man were responsible for the destruction of 9 of the 35 active nests under observation. The young from two more nests disappeared before their eyes had opened, and the destructive agent could not be determined. Table 7 shows the causes of nestling mortality in the 35 functional nests under observation.

Besides the nests studied by the writers, 18 destroyed nests were reported by reliable persons. Table 8 shows the agents responsible for the mortality.

Tables 7 and 8 indicate farming operations as the leading destructive factors in relation to nestling cottontails. Plowing, haying, and cultivating were responsible for the loss of 51.7 per cent of the 29 nests destroyed. Plowing was an important mortality factor only during the early part of the nesting season. Haying operations accounted for the loss of eight nests. Mowing generally was not injurious to nestlings because of the protection afforded by the nesting cavity, but three litters, almost ready to leave their nests and frightened from the cavity, were caught in

**TABLE 8**
**Reported Causes of Nestling Moratlity in 1940**

| Mortality factor | Number of nests destroyed |
|---|---|
| Haying operations | 6 |
| Plowing | 5 |
| Man | 3 |
| Dog | 2 |
| Cat | 1 |
| Cultivation | 1 |
| Total | 18 |

Photo by Henry Schell

**A handful.**

the cutting bar. Five litters were destroyed when hayrakes exposed or pulled the young from their nests, but usually the rakes passed over nests without harming the young. Three nests under observation were successful although both a mower and rake had passed over them. One nest in a cornfield was reported destroyed when the crop was cultivated.

Mammals were responsible for the destruction of 20.7 per cent of the 29 nests. Unknown predators, cats, and dogs, each destroyed two nests. No nests destroyed by avian predators were observed, doubtless because the nestlings were so well concealed.

Four nests were destroyed by man. The young were taken from their nests by persons who believed the mother had either deserted them or had been killed.

Excessive water destroyed two of the nests under observation. Nests were generally so well situated and constructed, however, that the young were warm and dry even after hard rains. Only during severe storms is any appreciable loss of nestlings likely because of drowning or wetting.

Beule (1940) reported a number of nestlings infested with larvae of the flesh-fly, *Wohlfahrtia vigil*, during the nesting season of 1939. This parasite was not found affecting nestling cottontails during the 1940 nesting season.

The success ratio of the 35 nests under observation was 68.6 per cent, or slightly greater than the 64 per cent of 1939 (Beule, 1940).

The success or failure of 81 old nests was determined by using the pellets of the nestlings as an index. The lining of each nest was carefully searched for pellets dropped by the young a few days before they left the nest. When pellets were found, the nest was considered successful; nests having no pellets were believed to have been destroyed. This search revealed that 60 of the 81 nests contained pellets, indicating the success of 65 per cent in 1940. The same procedure in 1939 showed a success of 64.7 per cent of 72 old nests (Beule, 1940).

### Summary

1. During 1940, cottontails nested from the middle of March through September.

2. May appeared to be the most important nesting month during the 1939 and 1940 breeding seasons.

3. Cottontails nested in a number of cover types; although most of the nests were found in open fields, this cover type did not have the greatest nesting density.

4. Apparently no particular density and height of cover were favored for nesting.

5. Favored nesting sites were found only in orchards, pine plantations, or woods.

6. Cottontail nests were found on all degrees of slopes from 0 to 35 per cent, and the cavities usually faced downhill.

7. Nesting cavities were apparently dug and lined by the female rabbits, often several days before the birth of the young.

8. Nesting cavities were often abandoned, but active nests were not.

9. During the 1940 study, 35 litters of nestling cottontails and 9 sets of embryos were examined.

10. In 1940 the size of the average litter was 4.95, and in 1939 the average of 26 litters was 5.42. Litters during these 2 years ranged from 2 to 8 in size.

11. Litters were usually larger during the first half of the nesting season and became smaller as the season progressed.

12. Cottontails weighed about 25 grams at birth and averaged about 112 grams when they left the nest.

13. Tarsal measurement proved a satisfactory index of age of nestling cottontails. The daily tarsal-growth rate was about 2 millimeters.

14. The eyes of cottontails usually opened about 7 days after birth.

15. Nestlings normally left the nests 15 or 16 days after birth.

16. Except during feeding periods, nestlings received little maternal care.

17. Eleven of the 35 active nests under observation in 1940 were destroyed, and 18 additional cases of nest destruction were reported.

18. Farming operations were responsible for 51.7 per cent of the 29 nests destroyed.

19. Mammalian predators destroyed 20.7 per cent of the 29 nests destroyed, but no avian predation in cottontail nests was observed,

20. Excessive water may sometimes be an important mortality factor.

21. The success ratio of 35 active nests in 1940 was 68.6 per cent; in 1939, 64 per cent.

22. Pellets of nestling cottontails appeared to be a good index of the success or failure of old nests.

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# MAN THE BORROWER

*Continued from Page 4*

amazing accuracy. It usually captures the spider or bug which comes within range.

And what about camouflage, smoke screens, poison gas and conquest of the air? Did we have models for these also? Yes, excellent ones in each case. What hunter hasn't stared futilely in trying to pick out a quail from its mask of dead leaves or marvelled how a gorgeous old cock pheasant could conceal himself? Fox squirrels among the autumn leaves; the warty, brown backs of toads against the soil; gray moths against the bark of trees; green insects among the leaves of plants—these are but everyday examples of camouflage.

The smoke-screen business probably began with the squids and octopi in the earliest geologic time. But living in water, real smoke, of course, wouldn't work, so they used ink, the ink being made by each squid, and stored in a convenient pouch ready for use.

The squid's ink sac opens directly into the funnel through which he discharges the water by which he propels himself. He fires a jet of ink into the water and, while his opponent is confused by low visibility, he calmly moves off behind his protecting screen. As if not satisfied with this safety device, the squid has another. By means of pigment shifts he can change color, a pale bluish-white being succeeded by a mottled-reddish brown—a kind of blushing and paling.

Poison gas, too, is old stuff in the animal world. Now and then when I raise an old board, I uncover a beetle which, when I give chase, discharges its gas gun at me—a series of Lilliputian explosions accompanied by a pungent smell and smoke. The weapon on this bombadier is too feeble to hurt me, but it doubtless disconcerts its enemies.

There are other creatures that play this poison gas game, and on a far larger and more effective scale than the beetles. Minks are notorious for their sickening bromine-like odor, and the skunk is so secure in the strength and efficiency of its weapon as to be almost nonchalant in the presence of enemies. The effective range of its double-barreled gas-projector is about fifteen feet.

And our recent conquest of the air? Well, here again we had our models in all ways of flying from balloon to parachute, to gliders to real wings—and all of these millions of years old. Those long white gossamer threads hanging straight out from fence posts in the fall and sticking uncomfortably to our faces as we pass are nothing but the "balloons" of young spiders.

Each adventurer crawls to the top of a post or other elevation, spins out a long web into the air and as it catches the breeze, jumps off after it and goes ballooning merrily wherever the wind takes it. One needs but to glance at the cruising seeds of milkweeds and dandelions to see that the plant kingdom also knows how to fly.

We are pretty sure that the reptiles were the first large flyers. Fossils of Pteranodon, one of the great winged reptiles, show a wing-spread of twenty-five feet, although its body probably weighed less than thirty pounds. The ancient reptiles had wings much like those of our modern bats, a flapping front leg with a membrane stretched between the fingers, and from this running down along the body to the hind leg. This harnessing of the hind leg to the wing was an awkward arrangement and these reptile flyers were probably not very graceful in the air and perhaps nearly helpless on the ground.

(Continued on Page 31)

# MORE SQUIRRELS IN PENN'S WOODS

*Continued from Page 5*

from year to year than did these associated species.

It is a relatively simple matter for the scientist to diagnose the ills of millions of acres of potential gray and fox squirrel habitat, but the problem of putting these acres back into production for these animals offers a real challenge. Fortunately, squirrels learned to eat corn from Indian gardens long before the white man settle North Amercia and their acceptance of this cereal cushioned the blow that might otherwise have come when the chestnut died.

The development of a farming pattern of woodlots and cropped fields favored the increase and spread of the northern fox squirrels, which were originally confined more or less to the prairie groves and "oak openings". Fox squirrels took to a corn diet eagerly. Much of the original gray squirrel range did not hold up well under continuous corn cropping or even grazing, and consequently is reverting again to a more proper land use, timber growing.

With the demand for timber, not as yet offset by the use of metals and plastics, it is inevitable in the north that timber will continue to be cut before it reaches the desirable condition for gray squirrel production.

The problem of putting a fox squirrel woods into production is much simpler than that of rebuilding a gray squirrel habitat. Ordinarily, where fox squirrels are found, the land-use is such as to include considerable corn. The development of crop rotations, while desirable as correct land-use and in prolonging the productivity of the land for corn, has reduced the acreage in many sections and thus diminished the food supply for fox squirrels.

Similarly, resettlement programs, also following correct land-use policy, have eliminated the people who grew the corn that formerly made considerable adjacent forest edge habitable for gray squirrels. In sections where this cereal is still grown on the same land for several successive years, the methods of harvest are such as to produce considerable waste grain which remains in the field and is therefore available as fox squirrel food until spring plowing.

According to one investigator this waste may sometime run as high as 7 bushels to the acre where the crop is machine-picked. Under such conditions it is relatively simple to build up good fox squirrel populations in second-growth woodlots and even hedgerows merely by installing artificial dens. **Hesselschwerdt, 1942**, obtained almost 68% usage by fox squirrels of dens in fencerow trees, hedges and woodlots in the Illinois cornbelt. Where the food and den requirements are thus taken care of, it may still be necessary to set aside small refuges where a broodstock will be held for the following year. In naturally productive fox squirrel territory, however, refuges are seldom necessary, since each hollow tree represents a type of refuge or escape cover. Refuges might be considered as a method of regulating game kill where seasons and bag limits are obviously too liberal.

Winter feeding, the planting of food trees in woods borders and fencerows, and the development of travel lanes connecting woodlots are all sound measures for improving fox squirrel habitat. Leaving standing corn adjacent to woodlots and supplying corn and nuts in wire hampers attached to den or refuge trees are some of the better methods of insuring a winter food supply. In thinning out the woodlot, it is always desirable to leave several good combination den and seed-producing trees. This not only assures the maintenance of a good timber type but also a few squirrels for hunting or esthetic reasons.

The restoration of gray squirrels on cut-over lands is extraordinarily difficult. The installation of artificial dens alone is seldom practical, as an area lacking dens is usually deficient in food, and vice versa. It is usually too expensive, therefore impractical, to provide an even distribution of food and dens artificially on extensive forest tracts. The next best thing is to concentrate gray squirrel habitat improvement on specific units of forest.

Black Squirrel

A plan I developed while working in Southern Ohio, consisted of one group of six artificial dens and one wire basket feeder for a ten-acre unit of second-growth upland oak forest. The dens were placed at a height of 20 feet or over, and the entrance was cut in the side of the box next to the tree trunk rather than in the front. In winter feeding the usual difficulties were experienced in the servicing of the feeders. Unless the feeding is done consistently and can be carried into the spring months, it is best not to undertake it. Since squirrels do not utilize any part of the corn grain but the germ, considerable cracked corn piles up beneath the feeders. This may attract white-footed mice which, in turn, entice blacksnakes to the feeding spots.

Blacksnakes are at times important squirrel predators, and it is possible that increased predation by them may offset some of the beneficial values of winter feeding. Notwithstanding this, workers usually report that winter feeding, when conscientiously done, produces definite results in increasing and holding squirrels on an area. **Chapman and Baumgartner, 1937**, discuss in detail the problems of winter feeding. On the basis of recent data, it is felt that fluctuations in squirrel populations, usually termed the "squirrel cycle", are traceable indirectly, at least, to nutritional deficiencies.

In gray squirrels, it was found that during periods when squirrels were forced to utilize inferior foods, large numbers of coccidia were found in the viscera of collected specimens. This leads one to believe that squirrels are occasionally killed off by coccidiosis due to inferior foods. Nutritional deficiencies might also inhibit the production of survival of young squirrels.

Let us consider a hypothetical case which might explain a "cyclic" decline in squirrel numbers. There is a poor supply of natural foods which becomes entirely exhausted after the peroid of squirrel emigration is over in autumn. Should this be followed by a severe winter, squirrels would perish from starvation or freezing and there would be the usual natural losses to predators. The poor physical condition of adults surviving until spring would mean that few or no young would be produced. Young which were born would acquire coccidiosis from adults and die. Many adults would die at the same time of this diesase. In the following summer few squirrels would be present and in the autumn squirrel hunters would recognize a cyclic "low".

Such a cycle does not occur simultaneously over an entire region, due to differences in natural food production influenced by late spring frosts and other factors. However, cyclic "lows" will average about five years in their occurrence, at least in the northern states. A characteristic of gray squirrel cycles is that, where "lows" prevail, there are nearly always "islands" where good populations of squirrels may be found.

Food patches of corn for gray squirrels are impractical because of the expense involved in fertilizing and liming poor soils characteristic of gray squirrel range, and such patches would be entirely out of the question where deer are present. In the south, chufas grown for hog feed are eagerly sought by squirrels as well as quail, wild turkeys, deer and raccoons. It is suggested that patches of these perennial sedgelike plants might well be planted experimentally for squirrels and other wildlife in the north. Peanuts might also be grown for squirrels on suitable soils, but this has the disadvantage of being an annual crop as expensive to plant as corn.

Among the perennial sources of food for gray squirrels, small "orchards" of Chinese chestnuts are excellent. Likewise, widely-distributed patch plantings of the thicket-forming bear oak, running oak, and dwarf chinquapin oak are suggested. The annual fruiting running oak is normally found much further south, but experimental plantings should be made in Pennsylvania to determine its survival under northern conditions. Its value for quail and turkeys has been amply demonstrated in the south.

In most of the gray squirrel range with which I am familiar, the hunting pressure does not reach the point where refuges might become necessary. **Edminster, 1937**, feels that

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# THE BUCKTAIL MOUNTAINS

*Continued from Page 10*

The Game Commission has acquired and placed under game management over 100,000 acres of shooting lands in this region.

The Department of Forest and Waters has acquired over 1,000,000 acres of commercial timber land and should acquire 2,000,000 acres more, which will at the same time serve the 4-way purpose of growing timber, protecting watersheds, increasing game habitat, and providing scenic values.

The Fish Commission continually stocks the numerous trout and bass streams, and fishermen from all parts of the State come into the Bucktails to enjoy this sport.

Twenty large-sized towns and cities located on the region's border are ports of entry, and together with three towns in its interior are adequately prepared to serve the needs of visitors.

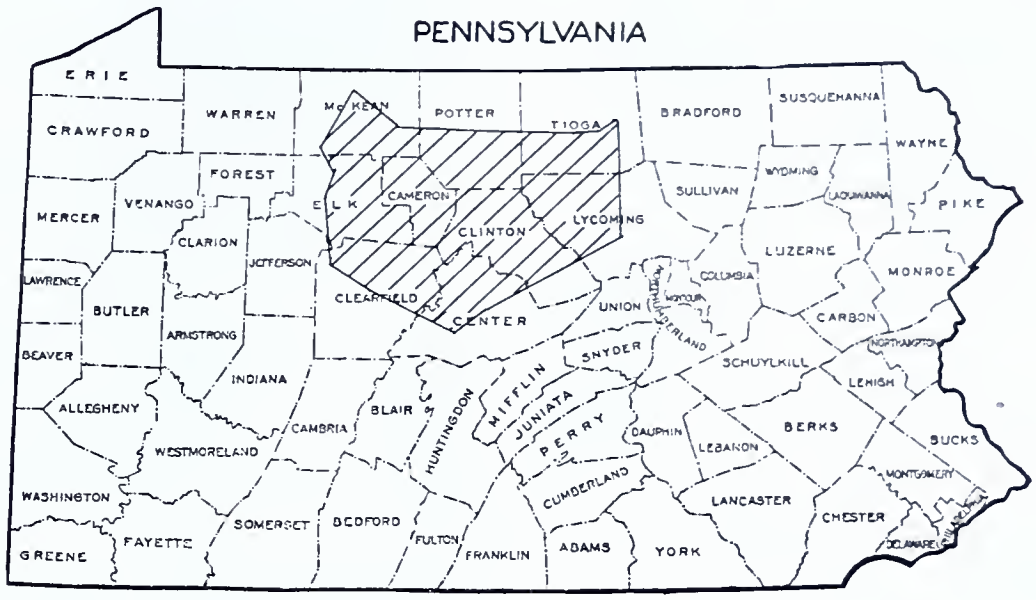
Some of the scenic attractions are the Grand Canyon view near Wellsboro, the Hyner Lookout near Renovo, the big trout at Bellefonte, the Bucktail State Park extending from Lock Haven to Emporium (a distance of seventy-five miles) noted for its beautiful and inspiring scenery, the Big Game Trail extending from DuBois to Driftwood, the Jersey Shore—Coudersport Pike, the driveways throughout the Pine Creek section, the Bald Eagle section, the Black Forest section, the Moshannon — Clearfield sections, the Kettle Creek section, and lessor areas.

The prevention and control of forest fires has resulted in a paper-wood and chemical-wood industry. The small undergrowth that was constantly being burned now reaches a size for cutting that assures a steady yearly crop of thousands of cords. This cutting improves game food and shelter.

The Department of Forest and Waters this year has offered its first large cutting of ripe and full grown timber. When cut and sold by the sawmill men, together with the paper-wood, it will bring to the residents of these mountains at least $5,000,000, to which should be added the annual cash spending of sportsmen, campers, and tourists of another $5,000,000 amounting to a grand total of $10,000,000.

One million visitors a year is the potential lure of these mountains; over 200,000 big game hunters hustle in and out on account of the shortness of the seasons; a like number of fishermen, campers, forest park visitors come in all summer long; and thousands of tourists view its scenery throughout the year. Throughout the year is an attainable figure when the Department of Commerce objectively publicizes the Bucktail Mountains, supplemented by the commercial advertising of those who seek a profitable tourist and recreation business.

It took forty years for the Department of Forests and Waters and the Game Commission and the Fish Commissions to achieve their present day success, which was non-existant, or nearly so, when they began their reclamation work. [But it should not take the Department of Commerce and Department of Highways that long, nor nearly that long, to bring up the tourist travel to the six hundred thousand mark from what now is a mere trickle.]




If you hunt or fish or camp or tour in the Buctkail Mountains, why not proclaim them as such. When you next take your family or friends out for a scenic drive why not show them this vast, rugged area, this scenic paradise?

This part of the West Branch Valley in recent years has been a serious problem area, but under the aegis of "Bucktail Mountains" will cease to be, because the Bucktail Mountains definitely are big business today.

# MAN THE BORROWER

*Continued from Page 29*

Birds, when they developed flying, got away from the clumsy reptile-type of wing.

The insect wing is in no way related to that of reptile or bird. Insects have fossil wing remains in the Upper Carboniferous of the Paleozoic Period, long before the flying reptiles appeared.

Man learned to fly by first learning to glide, and probably so did the animals. Flying squirrels and lemurs still use that method, for actually these creatures do not fly, but glide through the air by means of membranes of skin stretched between front and hind legs.

Of course, our flying machines are really only self-powered gliders, although we have copied both from the insects and birds in making them. The wings of our planes are flat and thin like those of insects. We can tilt portions of them at various angles as do the soaring birds, and the bodies of our airplanes are supported by hollow tubes of metal, a mechanical principle developed millions of years ago by both reptiles and birds as shown by their hollow, air-filled bones.

We can now outdo the birds and insects in sustained flight and speed, but we would never have flown without them. And they can still do something in flying that we can't: go farther on a given quantity of fuel per unit weight of machine.

Yet man, the great borrower, successful as he has been in imitating or equaling Nature's methods, has encountered a few which have so far refused to be imitated. Perhaps one of the most exasperating of these is the cold-light machine of certain insects, the fireflies, often said to be phosphorescent.

These insects do not burn phosphorus, but luciferin, a substance which when combined with air in combustion yields almost exclusively light rays instead of 98 per cent heat rays as in the ordinary gas flame, or 90 per cent heat rays in the electric arc light. Not the least of man's triumphs in equaling nature will be the discovery of the secrets of luciferin.

# ORGANIZED SPORTSMEN

(Continued from Page 3)

influence, one way or another. We believe in clean politics in reference to the conservation of natural resources and the civil rights of our people. The power and influence of any organization is judged by its membership and results eminating from its existence.

Wildlife in Pennsylvania needs your support. Join your local club. Game and fish can't vote. Moreover, the hunter or fisherman who insists on the bag and creel limit each day is not a true conservationist. The future of our sport lies within the power of the hunter and fisherman. Let us all join hands and work for the common good for the present and future generations.

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"I'm so proud of my boys," said one of the happy mothers of this neighborhood, "not one of them has ever been arrested except for speeding and on liquor charges."

# FOX HUNTING NOTES

« « By W. NEWBOLD ELY, M. F. H.

THE yellow forsythia is streaking all the green brown landscape and as Longfellow once wrote:

"Bright and glorious is that revelation
Writ all over this great world of ours;
Making evident our own creation,
In these stars of earth, these golden flowers."

The cardinal, Richelieu-like in his "pink" hunting coat is with us again. He's a much surer vernal harbinger than the hackneyed robin. . . . Hounds lie flopped out around kennel yards dreaming lazily of the past season's red pilots, and runs from "the murmuring pines and the hemlocks".

In short, Spring, if not prosperity, is just around the corner; and our minds like Scarlet O'Hara's, gently turn to thoughts of land.

Heavyweight hunters are gingerly tried in traces and vegetable garden implements are swinging up and down the land.

In consequence of this present proper emphasis on the soil we take pleasure in printing herewith a letter sent in by Bob Corrigan to us at JUDGE.

Some foxhunters and farmers alike have a natural ability to spread it on. But for those less fortunately gifted this mention of some of the mechanical agrarian aids available may be of interest.

THE SPREADING CRISES

Beers, Sawbuck & Co.
Philadelphia, Penna.
Gentlemen:

Since last summer I wrote you three times still about the brake attachment 23 MF 753 for your two-horse spreader 23 MF 703 E I bought. For $13.50 I sent you also a money-order, and I got nothing. Maybe you think that's the same thing the spreader spreads, huh?

75 bushels two horses should pull, your catalogue tells me when I buy it; so they pull it full up the hill by my barn and it runs right away down the hill by itself again and dumps itself. Am I Roosevelt, I can get away with such as that? I bought still your dam machine so I can spread the stuff, not dump it.

Plant food it makes by pulwerizing and dis-tributing even, so I am less tired after a day's work, the catalogue says. Only after picking it up and loading it again two or three times in the spreader I am tireder already than if I dis-tribute it by hand, and I am the one which is pulwerized, not that stuff.

So instead of the brake attachment 23 MF 753 E what I sent you $13.50 a money order for, I get a letter I will hear from your complaint department still. Mister, I don't want no complaints. Of them I got already plenty, and no market however. For complaints I can go always to the county farm agent, and him you could have, too, no charge.

From your complain department I got last winter word they are sending me for your electric pig-warmer 23 L 10580 after it electricated my best brood sow, a new heater element. With a new heater element can I somehow get me a new brood sow?

Never mind such a complaint department. I want you should send me right away the brake attachment 23 MF 753 E for the manure spreader I paid for. Otherwise this time I get a lawyer sure should sue you for damages and insults and inquiries, because I fell off the thing still and lit in the stuff when it spilled.

For twenty years you should see by your books I am a customer of yours, and by golly I bet you never had no experience like that. Only I believe your catalogue I wouldn't of, neither; and if you think I ain't mad you can't understand English, is all.

Your friend,
Willie Koffman,
Holsopple, Penna., Route 1.

P. S. Never mind the letter, still. The dam brake just now come by the mail in.
Willie K.

# YOU NEVER KNOW

*Continued from Page 12*

knew we had started out late, and this hunt had lengthened out beyond expectation. Bravely I took a peek, "What time do you say?" I asked.

"Oh, about 2:00 o'clock," he replied.

"And then some," I says, "3:30, we'd better make tracks".

As near as I could guess we were about four miles from home.

Al grabbed a 'coon and the rifle, I the other 'coon and the dogs, which I had snapped on the leash for fear they might hit another track and keep us out till daybreak.

At 4:15 we walked in the kitchen door, two very tired but elated hunters. However we found our better halves in different spirits, although relieved that we had returned all in one piece and had a successful hunt. Thelma had been imagining all sorts of things that might have happened to us, and had been unable to lie down and rest, and Hon, who is a veteran at this sort of thing during 'coon season, was so sleepy she could hardly sit up. After relating our hunt to them over hot coffee, they could partly understand why we had been out so long.

Hon said she wouldn't bake Bill any more pancakes though if he didn't quit his swearing, especially in front of our youngster. I knew all the time that she would, though.

Anyway Al says he wants to go 'cooning again sometime after he gets rested up.

The whole moral of this story as I find it, from actual experience is—you will invariably find 'coon where and when you least expect to do so. You never know. Right. 'coon hunters?

# More Squirrels in Penn's Woods

*Continued from Page 30*

refuges are of no value in maintaining populations of gray squirrels and other cyclic species.

It was indicated earlier that regulation of the open hunting season, bag limits, and methods of hunting are probably of considerable importance in squirrel conservation. Certain facts in the life history of a game animal should always be the basis for determining when the open season should be, and the population density should likewise be the determining factor in setting the bag limits. In the northern portion of their range, it is believed that both gray and fox squirrels are largely single-brooded, with the most of the young leaving the nest in April and May.

The fact that both species are partially double-brooded, and in some years many young squirrels are born later than usual, make it exceptionally difficult to determine when the open season should be. If data from a series of consecutive years were averaged, however, it would probably indicate that the season could satisfactorily open at any time after August 1. In the southern states, where two broods are nearly always the rule, it would not be wise to provide an open season until after second litters are fairly well grown. This may be November 1 or later. It is usually an advantage in law enforcement to have seasons on various game animals coincide as much as possible. This is excellent practice where life history facts, such as the presence of young, are not overlooked.

The daily bag limit on squirrels is most of the northern states appears to be reasonable but the length of the season is probably excessive in several states. In such species as squirrels, where the hunting pressure is not concentrated in a few days at the beginning of the season—as is often true in the case of pheasants — a hunting season of more than thirty days is excessive.

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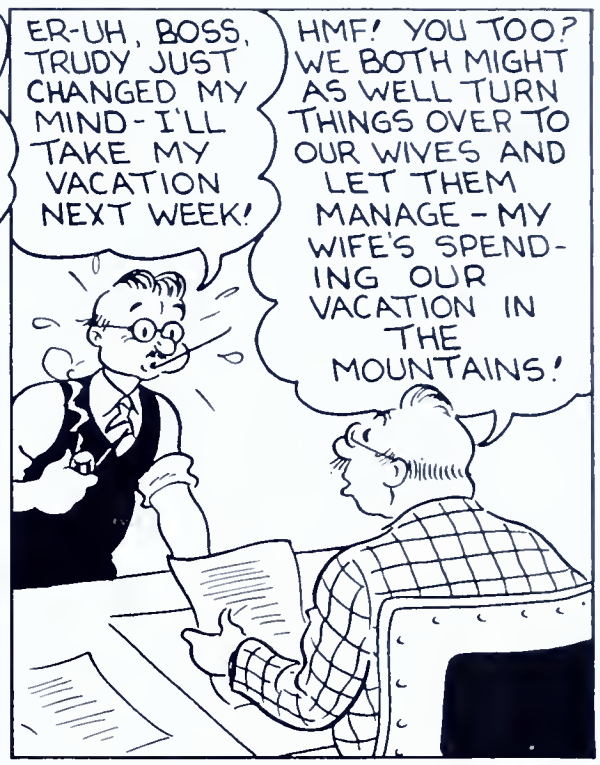
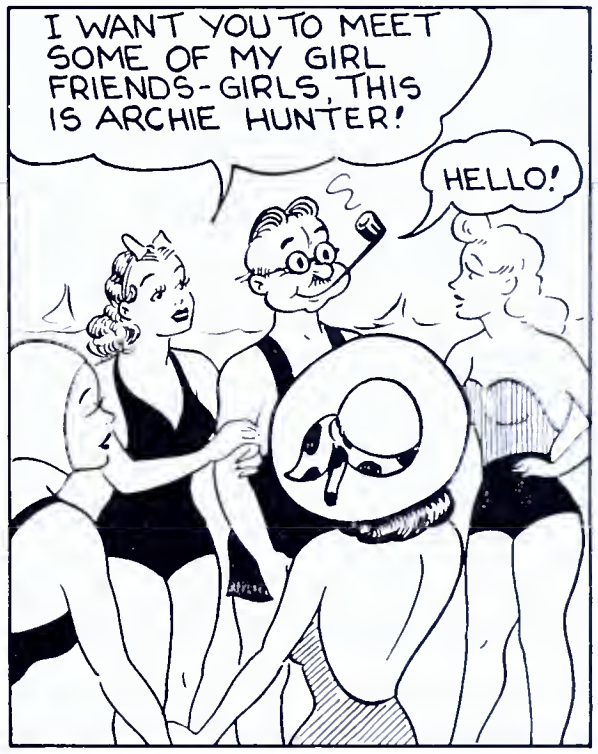
OH, HELLO, TRUDY---SAY, THE BOSS JUST ASKED ME IF I WANT TO TAKE MY VACATION NEXT WEEK, BUT I SAID I'D SOONER WAIT AND TAKE IT IN HUNTING SEASON!
OH, YOU DID, EH?

WELL YOU JUST LISTEN TO ME--YOU MARCH RIGHT IN AND TELL THE BOSS YOU'RE TAKING IT NEXT WEEK--YOU'LL SPEND YOUR VACATION WITH ME AT THE BEACH--NOT WITH A BUNCH OF PLAYBOYS AT SOME HUNTING CAMP!

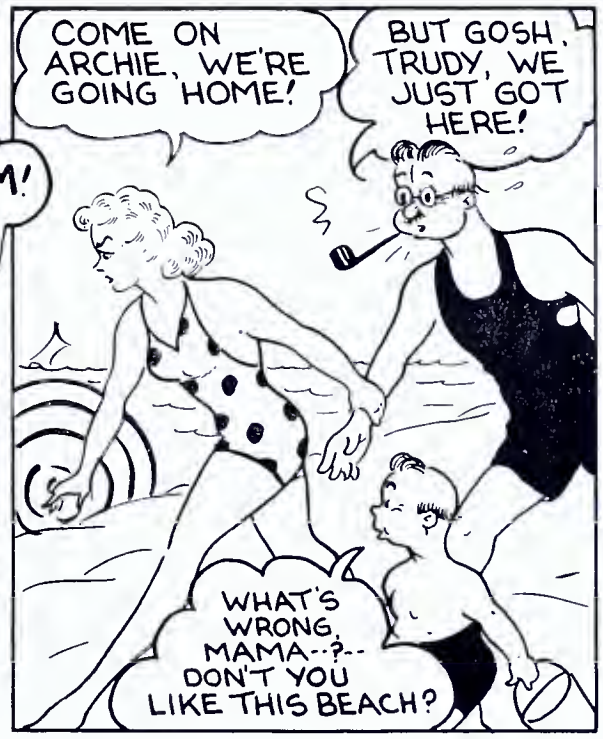

ER-UH, BOSS, TRUDY JUST CHANGED MY MIND - I'LL TAKE MY VACATION NEXT WEEK!
HMF! YOU TOO? WE BOTH MIGHT AS WELL TURN THINGS OVER TO OUR WIVES AND LET THEM MANAGE - MY WIFE'S SPENDING OUR VACATION IN THE MOUNTAINS!

THE NEXT WEEK!
IT WAS AWFULLY NICE OF YOU, DEAR, TO TAKE YOUR VACATION NOW SO JUNIOR AND I CAN GO ALONG!
MUMBLE, GRUMBLE!

HMM! MAYBE THIS VACATION WON'T BE SO BAD AFTER ALL--BY GOLLY, THERE'S THE BOSS'S OLD SECRETARY!
YOO HOO, ARCHIE, COME ON OVER!


I WANT YOU TO MEET SOME OF MY GIRL FRIENDS-GIRLS, THIS IS ARCHIE HUNTER!
HELLO!

OH, ARE YOU THE ARCHIE HUNTER THAT HELEN TALKS SO MUCH ABOUT?
WHY, WE GIRLS HAVE HEARD SO MUCH ABOUT YOU WE ALL FEEL WE KNOW YOU!
AHEM!


COME ON ARCHIE, WE'RE GOING HOME!
BUT GOSH, TRUDY, WE JUST GOT HERE!
WHAT'S WRONG, MAMA--?--DON'T YOU LIKE THIS BEACH?

THAT NIGHT!
UH, ARCHIE, I'VE JUST BEEN THINKING, MAYBE I'VE BEEN SELFISH ABOUT YOUR VACATION - NEXT YEAR YOU MAY TAKE IT IN HUNTING SEASON!
CARROLL

## SPORTSMEN'S PLEDGE

★ I PLEDGE MY HEART AND MY RIGHT HAND TO MY FLAG AND MY COUNTRY.

★ I FURTHER PLEDGE MYSELF TO HELP CARRY OUT THE WILDLIFE CONSERVATION PROGRAM, NOW IN PROGRESS, IN PENNSYLVANIA TO THE END THAT YOUR BOY AND MY BOY, NOW SERVING HIS COUNTRY, MAY FIND THE GOOD HUNTING AND FISHING HE HAS A RIGHT TO EXPECT, WHEN HE RETURNS TO CIVIL LIFE.

«[ *This motto was adopted by the Tioga County Consolidated Sportsmen at Wellsboro.* ]»

# PENNSYLVANIA GAME NEWS

JULY 1942
TEN CENTS

# PENNSYLVANIA GAME NEWS

PUBLISHED MONTHLY BY THE PENNSYLVANIA GAME COMMISSION, HARRISBURG, PENNSYLVANIA

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VOL. XIII, No. 4

# EDITORIAL

JULY, 1942

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*Cover by Fred Everett*

## CLEAN-UP FOR CONSERVATION

By FRED A. GLOVER*

NOW is the time to do your bit for the defense movement and wildlife. This is the thought that struck me as I saw a man cleaning up an old dump ground. Here were future armaments. Such objects of salvage as scrap iron, aluminum, rubber tires, old automobiles, glass, tin cans, and paper boxes are present in practically all dump grounds. Men are collecting these reusable materials.

How does this affect wildlife? Well, small areas such as these dump grounds have been eyesores in the past. Now with the refuse cleared from the land it is possible to transform these former waste areas into suitable habitats for wildlife. Sportsmen, Boy Scouts, and farmers are always willing to cooperate in such work in order that the supply of wildlife food and cover may be increased.

Primarily or indirectly game and wild animals are dependent upon plants for food and cover. A few of the plants of value to game which can be propagated readily from cuttings are grape, coral-berry, willow, bittersweet, Virginia creeper, honeysuckle, wild rose, and nightshade. Plantation stock of the following shrubs and trees aid in rounding out the game habitat: maple-leaf viburnum, black hawk, flowering dogwood, crabapple, highbush cranberry, black locust, Virginia pine, white pine, red pine, Norway spruce, red mulberry, red oak, white oak, and white cedar. The Pennsylvania Game Commission bulletin 16, **Wildlife in the Farm Program,** will give valuable information and tips for the conservationist.

The esthetic value of such a project cannot be measured. Many different species of wildlife would use these improved havens. Game birds are attracted by the abundance of food and protection offered. Cottontails would nest and feed in the vicinity. Colorful shrubs such as flowering dogwood, black haw, wild rose, honeysuckle, and bittersweet are always of scenic value. Shrubs such as these that have bright colors in the spring attract songbirds.

Besides providing a wholesome environment for wildlife, good vegetation is the best means of protecting the soil against erosion. Gullies, stream banks, dump grounds, and other waste areas in a field may well be planted for the good of wildlife and soil. Sweet clover and black locust not only help to hold the soil but also build it up.

Dump grounds located along streams present a potential source of pollution. Rats and mice gather around dump grounds for the refuse and often carry diseases. Eradication of such areas would be an important sanitary measure.

Here we can accomplish much for our defense program and wildlife. Let's clean up for conservation! (See illustrations, Page 24).

*Graduate Assistant, The Pennsylvania Cooperative Wildlife Research Unit.

## HISTORIC

In the last issue we carried the first of a series of portraits of members of the Commission. This feature is continued on pages 16 and 17 of this number. As we pointed out previously, it required a lot of painstaking effort on the part of various employees of the department in order to acquire these pictures, consequently their historic value is increased many times over. The September number will conclude the salon with the portrayal of the executives and assistant executives who have served from the time the Commission was organized until the present time.

## AMERICANS ALL!

Believing it appropriate at this time for all citizens of the United States to rekindle the fires of patriotism in their hearts and daily endeavors, the GAME NEWS herewith publishes the Pledge to the Flag.

Memorize it and make it a part of your daily routine.

**"I PLEDGE ALLEGIANCE TO THE FLAG OF THE UNITED STATES OF AMERICA AND TO THE REPUBLIC FOR WHICH IT STANDS, ONE NATION INDIVISIBLE, WITH LIBERTY AND JUSTICE FOR ALL."**

**BUY MORE BONDS!**

# Pennsylvania Bags 700,000 Deer in Ten Years

*Reprinted from January 1942 issue Outdoor America*

## By SETH GORDON*

★

"A CONSERVATION miracle!" exclaim trusting souls when informed that in the thickly populated industrial state of Pennsylvania over 700,000 white-tailed deer have been bagged during the past ten years.

"Another wild fairy tale!" snort the scoffers who never believe anything they read, and only half of what they see.

"If true, there just can't be any deer left", yell those who learn that of this astonishing harvest of deer—about 40,000 tons, 800 carloads of 50 tons each—half were actually does.

Well, brother, no matter into which class you happen to fall, let me give you the story; then draw your own conclusions. But prepare yourself for a few surprises.

As this item is being written (December 1, 1941) around 150,000 red-blooded American sportsmen are again pursuing the fleet-footed deer in the old Keystone State—and they are not merely out there in the mountains for exercise, either. However, that is an important part of it. And so is the camp life with a host of fine fellows, men who work like beavers for fifty weeks just to get off for their annual deer hunting trek into the wilderness, to leave behind the hustle and bustle of their everyday life, and at the end of the trip to return and tackle the old job with new vim, vigor and vitality. That's all part of this thrilling sport.

And, incidentally, so long as such a vast army of outdoor enthusiasts, in the midst of worldwide strife and bloodshed, can hie away to the forests for a brief period to forget it all we need not worry about our American people keeping their balance. They above all others will hold fast to their traditional moorings; and in their hands our cherished American way of life will be secure. More power to the 8,000,000 hunters in the United States.

But this it not a patriotic dissertation; it is merely the story of Pennsylvania's deer herd, and the problems which have confronted the Pennsylvania Game Commission in administering it during the past twenty years. Almost half of Pennsylvania's twenty-eight million acres is forest lands; the balance mostly farms. Of the forested lands only about 8,500,000 acres constitute good deer range; the remainder is widely scattered in small parcels not actually big enough for desirable deer range but excellent for small game.

The cutting of Pennsylvania's primeval forests was completed shortly after the turn of the century, and until about thirty years ago forest fires regularly swept over the mountainsides unchecked. An abundance of succulent browse was available for deer, with fine forest cover for such small game as the ruffed grouse, the varying hare, and other species.

Fortunately for our lovers of the chase, this was the period when the Pennsylvania Game Commission, which recently completed its forty-fifth year, really got underway. Until 1913, however, when resident hunters' licenses were first issued, the Commission had very little revenue with which to expand its program.

Forty years ago Pennsylvania was definitely a "shot out" State, especially for deer. If anyone observed a wild deer, or some lucky hunter brought one into town, it immediately became front page news. Up to around twenty-five years ago a deer was actually a curiosity.

One of the first steps in Pennsylvania's wildlife restoration programs was to stop all market hunting. Next came the rigid enforcement of laws to stop poaching, prohibiting the use of dogs in hunting deer, and forbidding dog owners to let their aids-of-the-chase pursue deer at any time. Hunting bucks prior to the normal breeding season has not been allowed for many years.

The Commission began the establishment of refuges in 1905, and to stock them with deer. These areas were especially selected blocks of forest land containing from 2500 to 3000 acres each, surrounded by a single strand of wire, a fireline, and well posted. In the beginning all new refuges were stocked with about fifty animals, usually one buck to three does, and from 1906 to 1924 it bought a total of not quite 1200 deer.

In 1907 the Buck Law was passed, largely for the purpose of making it safer to hunt deer, but incidentally to increase the breeding stock. That year it was estimated that 200 legal bucks were taken in the entire Commonwealth.

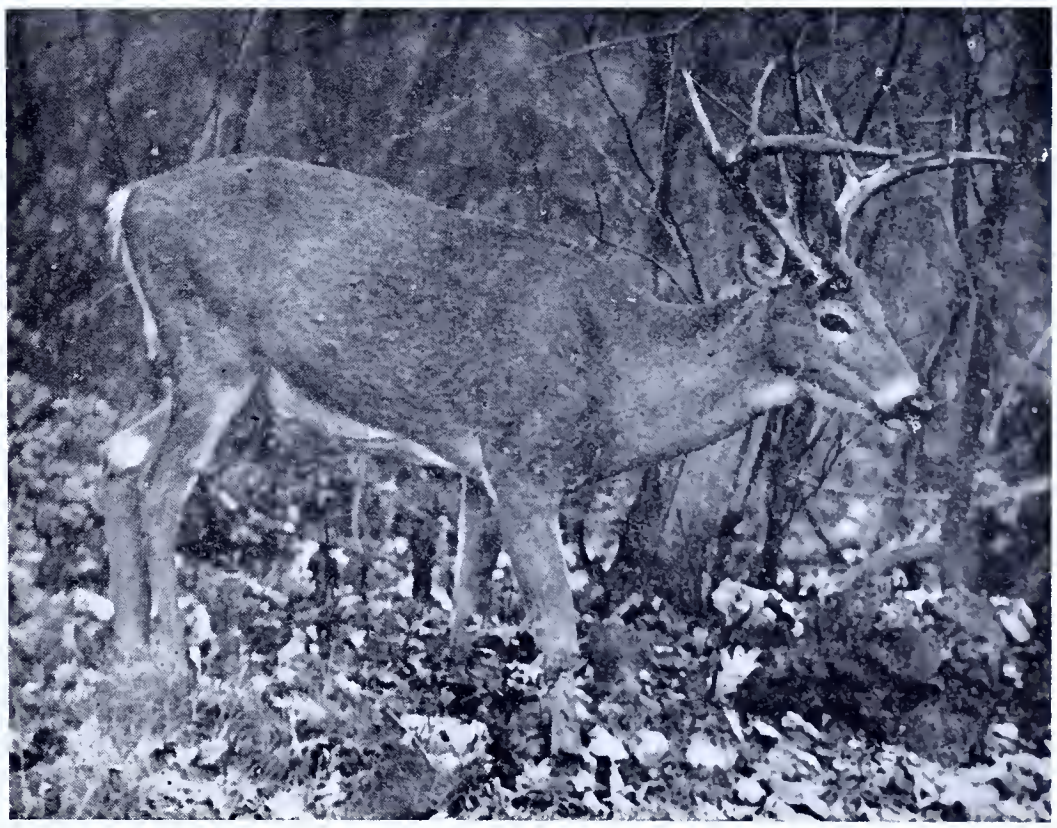
More refuges were established as fast as funds permitted. At first they were located only on State Forests, of which we have 1,600,000 acres. Later the Game Commission began to lease or purchase lands for refuges and public hunting grounds, and today the sportsmen of Pennsylvania own almost 700,000 acres of their own. At the present time a total of more than 300 forest land refuges are being maintained by the Commission, most of them in fine deer territory, **and all surrounded by public hunting grounds.**

The deer, permitted to have free range, quickly learned to seek the protection afforded by the refuges when pursued. There were no wolves left in Pennsylvania, bobcats were hunted down in the vicinity of all refuges, and the deer were given every possible opportunity to increase and spread to the adjacent open hunting grounds.

The sportsmen were so thoroughly sold on the Buck Law that the Legislature successively increased the legal requirements. Originally the law merely stipulated that only male deer with visible antlers might be shot; then a deer with a 2" antler; later the length was increased to 4", and finally nothing less than a male deer with two or more points (a "Y") to one antler was legal.

From 1907 to 1915, because of the very favorable food conditions which then prevailed throughout the forests and the protection afforded the animals, the herd increased rapidly, and by the latter year almost 1,300 bucks were bagged. That was the year when the Game Commission first began using the funds obtained from the sale of licenses, enabling it to expand its program rapidly. That also was the period when the State developed its extensive forest fire control program, and the thriving young forests soon began to

(Continued on Page 26)



Over 700,000 white-tailed deer have been bagged during the past ten years.

*Executive Director, Pa. Game Commission.

REUBEN TYRRELL
Pioneer Deer Hunter of Northern Pennsylvania

Marcus N. B. Killam (1875-1962)
Lycoming Pennsylvania's Greatest Deer Hunter

LEWIS DORMAN
Sleeper of the Famous Slag "Old Hoosby," and the Mighty Panther Hunter of the Seven Mountains

JAMES DAVID (1865-1892)
A Noted Clinton County Deer and Elk Hunter

LE ROY LYMAN (1837-1938)
A Potter County Hunter of National Reputation Who Slew Several Hundred Wolves in Northern Pennsylvania

C. W. DICKINSON
One of the Greatest Living Deer Hunters in Northern Pennsylvania

EDWARD H. DICKINSON (1856-1939)
Who Killed over 1300 Deer in the Forests of Northern Pennsylvania

GEORGE SMITH (1825-1901)
One of the Leading Deer Hunters of Northwestern Pennsylvania

"BILLY" LONG,
Born in Bemis County, 1863. Died in Clearfield County, 1930.
"The King Hunter" of the Pennsylvania Big Game Fields.

CAPTAIN JOHN D. DECKER, of Decker Valley, Centre County
Slayer of the Last Native Wild Elk in Pennsylvania, September 1, 1877

"JAKE" HAMERSLEY,
Who Cleaned Out the Last Wolves in Northern Clinton County.

Mausoleum (in Foreground) of Col. NIAH PARKER,
Famous Deer and Elk Hunter, at Gardeau, Pa.

DAVID A. ZIMMERMAN and Wife
Mr. Zimmerman was Sugar Valley's Greatest Deer Hunter

Isaiah Karstetter and Wife. Mr. Karstetter who died at Loganton, Clinton County, in 1917, aged 93 years, was the greatest Deer Hunter of his generation in the Seven Mountains

SETH BREDELL NELSON (1868-1957)
Slayer of 2000 Pennsylvania Deer, and at least 100 Elk
(He lived at Round Island, in Clinton County)

JOHN Q. DYCE (1848-1904)
The Famous Clinton County Hunter who Killed Three Deer with One Shot

Nelson Gardner and Wife. Mr. Gardner who died in Elk County in 1896, aged 73 years, was one of the Greatest Deer Hunters in Northwestern Pennsylvania.

JESSE HUGHES
A Famous Lycoming County Deer Hunter of the Long Ago.

AARON BALL (1823-1892)
One of Centre County's most successful Deer Hunters

THOMAS JEFFERSON STEPHENSON

# THEY WORE NO GLASSES

## Thumb-nail Sketches of Some Great Pennsylvania Hunters

By

Col. Henry W. Shoemaker

★

SEVERAL weeks ago this writer was shown a plaque containing the portraits of a score of old Pennsylvania hunters, and was asked the origin of the collection. They had been used as illustrations to his book "Stories of Great Pennsylvania Hunters," published back in 1915, when some of these great Nimrods were still living. In commenting on this aggregation of handsome and keen-visaged old men, someone remarked "they wore no glasses." That happened to be a fact, as even those of the group who lived close to The Century Mark, like Captain John D. Decker, of Decker Valley, Centre County, and Seth Iredell Nelson, of Round Island, Clinton County, read by lamp and candle light to the last without the aid of spectacles. Perhaps it was this superb and ever-lasting eyesight which made them devotees of the chase as long as they were able to hold a gun; or perhaps it was the hardier generation in which they lived.

It will be well here to give sketches of those of this immortal eagle-eyed coterie, whom this writer in his youth, knew well, and the particular branches of hunting and trapping in which they excelled. Seth Iredell Nelson, of Scotch-German stock, of which he was very proud, was born in Potter County, the same year as Abraham Lincoln, 1809. In 1840 he traveled by canoe down Kettle creek, with his family and belongings, and took up a claim on Chief John Smoke's small abandoned Indian reservation, at the mouth of Three Runs, Clinton County. Later he moved into a more substantial mansion across the Sinnemahoning, once occupied by John Keating's land agent, Billy Floyd.

Seth Nelson made his own rifles, farming, and household utensils, and was dependent on nobody. He kept a game book from the time he began hunting big game in 1827, until he quit being a professional hunter in 1874. In this book was listed 25 elk, 3,500 deer, 160 wolves, 50 panthers, 550 bears, 1,000 wildcats, 50 "catamounts" (Canada lynx), several wolverines, fisher, foxes, and many otters. In 1870 his pine marten trap line stretched across the Black Forest a distance of 50 miles. In 1895, at the age of eighty-six he shot one of the finest deer from his gun-room window, his eyes just as good as in his twenties. It was the old-fashioned Northern type with an immense rack.

Nelson was a small, slight man, never weighing over 140 pounds. His eyes were dark grey, his beard and hair black almost to the last. His son, Seth, Jr., was also a noted hunter, and his tall, slim, beautiful daughter, Mary Almeron Nelson, was one of the finest rifle-women in the Sinnemahoning Valley.

Captain John D. Decker, once sheriff of Centre County, was also a very small man. Grey eyed, his hair and beard, too, were black almost to when he died a few months short of the century mark. He had hunted wolves and deer all his life, and his sheds and out-buildings, like Seth Nelson's, were covered with antlers and hides. His most memorable hunt, he said, occurred on September 1, 1877, when he noted a two prong bull elk chasing a buck deer across his buckwheat field in Decker Valley. He killed the bull elk, its antlers not quite out of the velvet, a priceless trophy which he presented to this writer in 1915.

This was not the "last Pennsylvania elk" by any means, as a handsome bull hung out in Cambria County, during 1881, as per the columns of the "Mountaineer" of Ebensburg.

"Uncle" Charlie Dickinson, a veteran of the famous Bucktails of the Civil War, was long regarded as the greatest Pennsylvania wolf hunter. He lived for many years around the head of Potato Creek, McKean County, acting as land agent for the Butterfield family, who owned 100,000 acres of virgin timberlands. This vast forest was inhabited by wolves up to almost fifty years ago, and against these carnivores he matched his skill. On many occasions he lifted the squealing pups out of their dens by means of fish-hooks attached to stout cords. In his older days he resided at the outskirts of Smethport.

Nice trophy bagged by Edgar M. Gales, State College, near Starlight, Wayne County, last year.

Charles W. Dickinson had literary ability of no mean order and left, at his death, three manuscripts, all well-worth publishing, one on the Black Forest of Northern Pennsylvania, one on wolf hunting, and one on the vanished wild pigeons, which he used to net by the hundreds of dozens for the New York City markets. Mr. Dickinson was a tall man, over six feet, spare, and agile, his keen dark grey eyes, and black hair and beard made him a striking figure until the last.

Thomas Jefferson Stephenson, was also a Bucktail veteran, and hunted wolves until the last. He was born and died in Elk County. His dark beard, grown in the Civil War, was profuse, and his curling locks hung on his shoulders. His eyes were a dark grey, keen and penetrating. He always wore a bucktail and his Grand Army Button.

John Quigley Dyce, who died in 1904, was a pioneer Clinton County raftman, and log driver, as well as hunter and trapper. He had killed many wolves, deer, and bears in his day. His wife was a great-granddaughter of Catherine Smith, the woman gun-borer of the Revolution, whose husband, Peter Smith, purchased the Great Island near Lock Haven from the Indians for a long rifle, a red blanket, and a keg of rum.

John Q. Dyce knew many Indian legends, and much mountain folklore, and had an inexhaustible repertoire of old-time ballads and lumber camp songs. Physically he was a superbly handsome man, six feet tall, black haired, black eyed, with a clear olive complexion.

George Smith of the Smith Place, a famous hunters' resort in Clearfield County, was of Canadian birth, and came to Pennsylvania with gangs of Maine and Canadian log drivers, jam-crackers, and splash dam builders during the Civil War. He had the dark, furtive eyes, and aquiline features of an Indian, a coppery complexion, and scant dark brown hair streaked with grey. His heavy mustache resembled Gifford Pinchot's. Though he began to hunt in Pennsylvania twenty-seven years after Seth I. Nelson, his game book recalled Nelson's kills of deer, bears, wolves and panthers, but he had no elk to his credit.

Marcus N. B. Killam, of Pike County, was one of those who helped teach woodcraft to Gifford Pinchot as a lad and directed the course of his life as an outdoorsman and forester. These together with stirring tales of an earlier Pike County Nimrod, Tom Quick, were the genesis of Pinchot the Forester.

Probably six hundred deer fell to Killam's unerring rifle, during his long career in the forests of Northeastern Pennsylvania. Mr. Killam died in 1902.

Also slayer of six hundred deer was David A. Zimmerman of Zimmerman's Farm, Sugar Valley, one of the greatest deer hunters in Clinton County. As Seth I. Nelson had shot a deer out of his gun-room window, Zimmerman one night lying in bed at Ten Springs, shot a wolf that had come in the yard, and disturbed his slumbers. Dave Zimmerman who took pride in his Holland Dutch blood, was six feet tall, powerfully built, clean shaved, and with the hair, features, and eyes of an Indian. His father, John A. Zimmerman had come to the headwaters of White Deer Creek, from Zimmerman's Valley in Berks County, about 1827. He was the father of another great deer hunter and guide, Jacob W. Zimmerman, who died recently, aged nearly ninety.

Although Daniel Kerstetter died in Clinton County, 1907, he had not hunted much in Sugar Valley, but had been the most famed Nimrod of his day in the Seven Mountains about the Blue Rock, not far from Coburn

(Continued on Page 29)

# WAR and WILDLIFE

THERE has been much speculation regarding the effects that World War II will have on wildlife. Wildlife administrators, conservation organizations, members of Congress, and others have made inquiries as to the prospects and also concerning the possible effect of the war on funds available for the protection and restoration of wildlife. In order to give somewhat intelligent answers to these questions, a study was made of the effects of World War I.

Data on various factors over a continuous period of years, beginning before the last war and ending after the war, were collected from State game departments and other sources. These made possible an enlightening analysis of the situation during the last year. It was not possible to obtain accurate information from all of the States as several did not have game departments in the year 1916, some of the departments were young at that time with incomplete records, while others of the State agencies could not locate records covering the last war period. It was possible, however, to get sufficient data from which to make a definite analysis of the subject.

Many persons have predicted that one effect of the present war would be to decrease materially the funds available for wildlife management. Contrary to this belief, the data compiled from 22 States from which accurate figures were obtained showed that there was on the whole a gradual increase in funds available to the States for wildlife conservation through the previous war period, and a much larger increase immediately following the war. Stating this in definite figures, there was an increase in funds of 5 percent from 1916 to 1917, 8 percent from 1917 to 1918, and 20 percent from 1918 to 1919. Only three States out of the 22 indicated any appreciable decrease in funds for wildlife purposes, while the others reported either a nearly constant amount of funds or an increase in funds during the war period.

It has been often stated also that the present war would cause a decrease in the number of hunters and sport fishermen. Yet the data covering the last World War showed that there was a gradual increase in the number of hunters and sport fishermen during the war and a pronounced increase immediately following. The increases were 1.6 percent from 1916 to 1917, 2.6 percent from 1917 to 1918, and nearly 30 percent immediately after the war from 1918 to 1919. Only four States reported a slight decrease.

*Chief, Division of Game Management, U. S. Fish and Wildlife Service.

While it is true that a considerable portion of our population is serving in the armed forces, many of these individuals are not hunters or fishermen. Of those who are sportsmen, many are replaced on the fishing streams and hunting fields by workers on war projects who can now better afford to hunt and fish, and by novices in military training camps who, for the first time, have been exposed to the lure of outdoor recreation. Also, many sportsmen in the armed services will be able to do some hunting and fishing during the period of their military training.

Another factor that will tend to keep up the number of those who will go hunting and fishing is the normal increase in population which brings forward each year a considerable number of persons who have reached the age for active participation in these sports. Available data show that years of financial depression brought more reducing effects on the finances of the various State game departments and on the number of persons engaged in hunting and fishing than did the war years.

The information at hand and a study of the present situation indicate that during the year 1942, the first year of the present war for the United States, the number of persons who will seek recreation in hunting and fishing will not be materially less than in 1941. There probably will be fewer man days of hunting and fishing because many will be too busy helping to win the war to spend much time with hunting guns and fishing tackle. Furthermore, increased income taxes will lessen the number of days that many are able to devote to favorite sports.

Inability to purchase automobiles and tires also will decrease the number of days the hunters and fishermen can engage in field recreation; and, no doubt, will tend to decrease the number of persons who will hunt and fish, but in a much less degree. There will be more pooling of automobile transportation and use of other means of travel. Certain classes of persons who generally depend on hunting and fishing for their recreation will be able to obtain automobile tires, and they will, no doubt, share transportation with some of the less fortunate sportsmen.

Although it is true that the war will reduce materially or even stop the manufacture of sporting arms and ammunition, the best information obtainable indicates that there are sufficient stocks of ammunition and arms in the hands of sportsmen and dealers to take care of hunting needs at least for this year and probably for another year or longer. It should be noted, also, that except for a very limited number of items, sporting arms and ammunition have no value as equipment for organized military forces.

Many war-time factors, some of which have been mentioned, are now coming into effect and will have influences on the wildlife of this country. Those engaged in wildlife management are being requested by certain groups to stop all hunting and sport fishing during the war. Many arguments are used, among which are the necessity of saving for war purposes, ammunition and materials that go into its manufacture; saving of gasoline and automobile tires; and the preserving of game for men in the military services when they return. Also, the argument is presented that now is the opportune time to give wildlife a chance to increase abundantly and thus insure its conservation. It must be remembered, however, that what is good game management in times of peace is also good game management in times of war.

Wildlife plays an important part in peacetime recreation, and should play an important part in war-time recreation. Under war conditions recreation is extremely important in keeping up the national morale. Furthermore, good game management includes the

Photo by Frank L. Crosby

**William Koehler, son of Game Protector George Koehler with nice catch of trout taken in Loyalsock Creek, Lycoming County.**

*By W. E. Crouch**

★

wise harvesting of a game crop which is renewable from year to year, provided sufficient breeding stock is retained. In addition to furnishing recreation, the proper harvesting of the game crop can and does supply valuable food.

There are more than 900,000 big game animals, including deer, elk, moose, and antelope killed in the United States each year, which at an average of only 90 pounds each, dressed, represent about 81,000,000 pounds of meat. It is estimated that during the last year 15,000,000 waterfowl, 20,000,000 rabbits, 15,000,000 upland game birds, and more than 4,000,000 other small game were killed, which, averaging only one pound each dressed, would supply an additional 54,000,000 pounds of food. This makes a total of 135,000,000 pounds of meat in game animals and birds, to which can be added the game fish. All replacing domestic meat needed in our war effort.

There are more than 12,000,000 sport fishermen in the United States, and it is conservatively estimated that each of these will catch on the average more than 25 pounds of fish per year. In fact, information available shows that the average catch is above 30 pounds in many States; in California it is known to exceed 50 pounds. However, on the basis of an average of only 25 pounds of sport fish annually for each fisherman, there is supplied in this country each year 300,000,000 pounds of game fish. Altogether this adds up to 435,000,000 pounds of food available from the annual harvest of game animals, game birds, and game fishes.

According to the Quartermaster Corps of the United States Army, the meat allowance per soldier each day is 18 ounces, but the full quantity is not always supplied. Using this generous ration of meat as a unit, the 435,000,000 pounds of wild game and game fish used in American homes would replace enough beef, pork, poultry, commercial fish, and other meat to furnish each year sufficient of this food to an army of 5,000,000 men for more than 77 days. It is important to note also that with proper management, this valuable contribution to our war effort can be made annually without damage to the resources.

The Fish and Wildlife Service does not advocate letting down the bars so as to permit more killing of game to make a supply of meat immediately available. We should protect the breeding stock and harvest only the surplus that becomes available from year to year. Despite this reasonable principle, officials entrusted with the welfare of the nation's wildlife are urged by certain groups as a war measure to permit a raid on our game so as to furnish an unusual and immediate supply of food and to economize on the expenditures necessary to protect and maintain our wildlife resources.

To the uninformed some of these proposals may be very plausible; and to the game hog and the man who wants to profit financially on our game, the argument that we discard many of the game laws, discharge the game wardens, and stop the salaries of game technicians and administrators is like a message from heaven. During the first World War a very few States accepted such arguments, liberalized their laws, and cut down enforcement activities in connection with certain wildlife species. In so doing, a dependable source of food was immediately and greatly decreased, which, in some instances, has not yet been restored. Fortunately, this occurred in only a very few instances, and in most States game resources were adequately maintained through the war period.

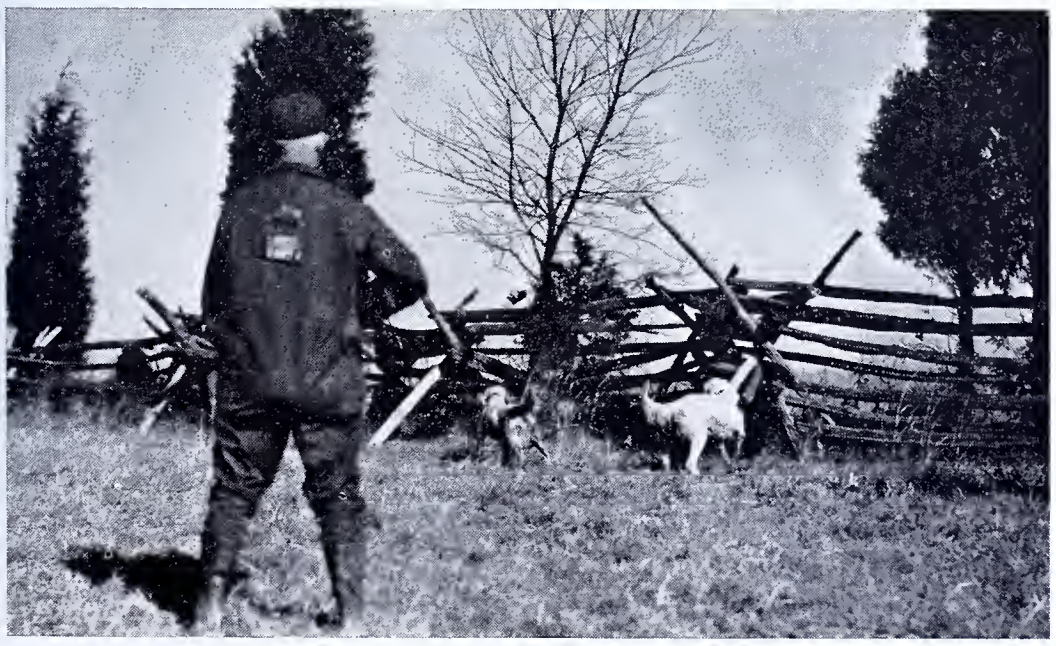
As in most wars, a food shortage existed during the last World War. It resulted in a strong demand for liberalization of game laws so that wildlife could be immediately utilized in large quantities. Evidence is not lacking to indicate that the movements were encouraged by persons desiring to profit by the commercial sale of game and also by those wishing to carry on unlimited hunting and

fishing. The matter was presented to the United States Food Administration, and after careful investigation and study the administration came to the conclusion that since wildlife conservation laws had been needed in peace and had operated to maintain from year to year a more abundant food supply, it was even more important that the restrictions should be continued and adequately enforced in war time so as to provide a continuing source of food.

Furs are important to the war effort as they are used to provide parts of clothing for soldiers who have to fight in the colder climates and for the clothing of aviators. During the first World War, civilian and military demands for furs brought about a decrease in a few species of fur-bearing animals in several localities, and a few States permitted the taking of larger numbers of fur animals which reduced the breeding stock in some instances to such an extent that the animals have made little recovery. The raw fur business in this country represents an industry valued at about $60,000,000 annually. Although furs should be utilized, their use should be reasonable and not so extensive as to prevent maximum annual production.

During World War I, wildlife suffered in the vicinity of military training camps, and there is evidence that the same thing is occurring now. This indicates that we may expect a very noticeable increase in hunters when the war is over, as many young men for the first time are learning the use of firearms and the recreational possibilities of hunting. As stated previously, the number of hunters and sport fishermen increased nearly 30 percent immediately following the last World War. The probability of a similar increase after the present war is a good reason for conserving our game wisely and in sufficient numbers so that men who risked their lives in the war may be able to enjoy hunting and fishing when they come back.

It is difficult to determine accurately what will happen to wildlife as a result of the present war by drawing conclusions from the effects of the last one. From all sides we hear that this war is different, and, indeed, it is different in several respects. It covers more territory and influences directly the activities of more of our people. More materials and food are needed. Personal transportation is restricted. We will have a larger army and a larger navy than in 1917 and 1918. Also, our nation's population is larger. Nevertheless, history tends to repeat itself, and it is probable that we can profit much in wildlife administration by using the experience gained in the last war.



**Wildlife plays an important part in peacetime recreation, and should play an important part in war-time recreation.**

I have a large loose-leaf note book.

# Nimrod's Record

THE date is January 8, 1942. The temperature here at my desk by the window, from which I can look down the hemlock-covered slopes to my favorite trout stream—the temperature here is about 68 degrees; but on the other side of the window it is quite a bit colder—just ninety-three degrees colder, to be exact. It is twenty-five degrees below zero, which is truly an invigorating spot on any thermometer.

I found it so when I climbed out from under the down robe at seven this morning and looked at the thermometer in the bedroom, which read fifteen degrees above. I grabbed my sheep-lined pacs and my wool hunting coat and hustled downstairs to build up the fires. As for a cap, I already had one on, a nondescript green tassle-cap which I always wear to bed in cold weather. I regard this old cap, which I have dubbed "the green hornet", with a deep-rooted affection; an affection which one can never feel for a headpiece unless he has a practically hairless head like my own. True, I am not a romantic spectacle at bedtime, with a bewhiskered face all but hidden under the faded "green hornet", but I am comfortable; the jibes of my hunting friends, as I appear in midnight attire to bank the fire, leave me quite indifferent.

Perhaps I'd better get back to the matter which prompted this manuscript: grouse shooting. On January 8, temperature twenty-five below, I've just been grouse hunting. It was a whale of a good hunt, too, with a bag of seven nice birds in less than an hour. That is not bad hunting; it is good enough, no doubt, to merit some more or less detailed description.

I took the little sixteen-gauge Ithaca grouse gun with twenty-six-inch barrels, bored modified and improved cylinder, and circled out through the pines above the cabin. I had the three older springer spaniels with me. They covered every inch of the thickets, and before long they flushed a nice bird which swerved out of sight so quickly that I couldn't get a shot. A moment later another bird burst out of a brush heap and came right back over me. I turned and winged him as he cleared a big white pine, but he set his wings and soared over the brow of the hill to the old slashing. Calling the dogs to heel, I worked down into the slashing and gave them the welcome command to "hunt 'em out", which they did with gusto. In a few minutes the bird rose to my left and tried to soar over the hill to safety, but I had a good shot and downed him. The three dogs couldn't decide who was to retrieve, so I hurried over to the bird while it was still worth retrieving.

I went back up on the flat again and through a nice stand of white oaks, on the acorns of which the grouse had been feeding. A nice red-backed bird took off the ground some distance ahead, and I marked him down in a patch of hemlocks several hundred yards to the north. Again keeping the dogs at heel, I walked to the edge of the patch. I knew I would have to be pretty lucky to get a shot here, for it was likely that the bird would fly straight away again, in which case I would not even see him in the thick cover. I determined on a little experiment: Sam and Sue, the two older dogs, were thoroughly trained to lie down and stay put until I called them, though I had never tried the stunt in the field. I put them on the upper edge of the thicket and, taking Dinah with me, worked around almost to the lower side, where I stood quietly for a minute or two. The idea, of course, was to get the grouse to watch the dogs and forget me, perhaps to fly out where I could get a shot. I called the dogs, and they came crashing through the little hemlocks towards me. Some strategy—a sort of Nazi pincers attack—but it worked. I got a nice shot, but I had to use both barrels to down the bird.

That made two. Next I worked the edges of the fields above Lockhard Run, hoping to catch an unwary single feeding along a fence row. The dogs worked well, covering thoroughly and staying well within gun range. (A wild, unruly spaniel is a real curse in the field.) I stopped to light up a pipeful, and to do so I had to lean the gun up against the rail fence. At that moment a grouse flew out, well in the open, and I jammed the pipe in my pocket, made a grab for the gun, and sent both barrels harmlessly after it. . . . Does a grouse think? One inveterate grouse hunter claims that they can read, write, add, and subtract. . . . I lit the pipe again and leisurely followed in the bird's line of flight. The dogs showed excited interest as we approached some down-timber that was literally wrapped up in wild grape vines. It was an ideal place for shooting; I stood ready as the dogs broke into the tangle. Not one, but three grouse exploded frantically into the air. I took my time and got one on an easy straight-away shot. In fact, I took too much time or I might have made a double before they got out of range. (I have stopped taking long range shots for two reasons: my gun is not built for them; and there are already too many cripples who die unfound as it is.)

Three down. I decided to swing over to the upper end of Griffin Run, which has always been a favorite spot for the birds. There are plenty of white and red oaks and a few big beeches there, as well as some large patches of sheep sorrel, all of which make choice grouse forage. The cover is a bit too thick for easy shooting, but then it is only a sporting proposition anyhow. As I approached the steep bank which drops sheer for seventy-five feet to the boulder strewn run, the dogs made game; a grouse ran along the ground beneath the low-hanging evergreens to take off at the shelf and soar across the ravine in front of me. It was probably thirty yards out when I pulled the left barrel. Feathers flew; the bird dipped and swerved crazily, righted itself and flew on, only to drop suddenly, end over end, on a huge slab pile left by the lumbermen. It was a hard spot to reach from where I stood but when I finally climbed on top of the pile of slabs I found the bird lying stone dead with its feet sticking up into the air.

Again keeping the dogs at heel, I crept through the thick screen of hemlocks to a patch of sheep sorrel from which I had often flushed feeding birds. I ordered the dogs ahead and stepped quickly into the open, ready to shoot should a bird take off. None did. I walked to the upper edge of the patch, along a high rail fence. I was about to climb over when I caught sight of Dinah working hard some fifty or sixty paces upstream. With a sudden lunge into a little hemlock she flushed the bird directly toward me. I could never score on game coming straight at me, so I turned, waited till it passed me, and shot it going away between the evergreens. It was only winged. It ran under the rail fence with the dogs in close pursuit. They couldn't squeeze between the rails. They ran up and down in a squealing frenzy, apparently too excited to think about jumping over. Finally, fearing that I might lose the bird, I heaved Sue over, whereupon she picked up the trail at once. I could see her darting around in the brush as she tried to close her jaws on the elusive bird. (What a thrill that must be for a bird dog!) After a short chase she came prancing proudly back to me, head high,

# By H. T. Wieand

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utterly ignoring a flapping wing which beat in her face, and which she had neglected to pin down when she picked up the bird. I took it from her, broke its neck, while she spit out a mouthful of feathers. The other two dogs sniffed it over well before I put it in the game pocket.

Quite a coatful, you must be thinking. Well, I wasn't through yet. I got another bird in an almost open clearing. The bird afforded me a perfect shot. I took plenty of time and led him a good two feet on a direct crossing shot. He dropped with a thud. Feathers floated down for several minutes in the still air. He was hit almost too hard; later examination showed that he had been hit by the very core of the shot pattern at not over twenty yards. At least twenty number six chilled pellets went right through him. While Sam and Dinah were deciding who should retrieve it, Sue again picked it up and brought it to hand.

I was walking back towards the cabin when I met my wife out walking with the two springer pups, Dixie and Pat. At her invitation I decided to walk along for a while. Hence she and the pups were on hand for the last bit of shooting for the day, which netted bird number seven. At the top of the river hill, where the trail cuts down to our favorite stretch of bass water, the dogs worked into a copse of dogwood and birch saplings over which climbed a network of thorny smilax vine. I had often put birds out of this ideal cover, where they feasted on the clusters of blackberries that hung in profusion from the vine, but I had seldom been able to get a shot. Today the dogs flushed three grouse. They exploded out in different directions, and while I was trying to decide which to shoot they all got safely away. One extra large black-ruffed old cock bird that I had often stalked before flew down over the hill into a tangle of grape vines. Here we followed—my wife, five dogs, and myself. Apparently deeming himself secure in his cover, the wily old gamester waited a little longer than he should have before flushing again. He burst out in a thunder of wings, knowing, no doubt, that he was in a bad spot this time. But he wasn't licked yet. The dogs seemed to be everywhere: the two pups were down the slope below me, and toward them he flew, a bare two feet off the ground, picking up speed every second. I couldn't shoot for fear of hitting Dixie and Pat, but just as he reached them he swerved off to the right, still close to the ground. I shot and missed, and he climbed almost straight up into the air. He was only a few feet from the treetops and safety when I hastily pulled the second barrel. It was one of the luckiest shots I have ever made; he crumpled instantly, and, carried by the momentum of his flight, fell far down the steep slope to land in a puff of feathers and roll to a stop, quite dead. He was a magnificent bird. I felt almost sorry as I stuffed him in the coat. I would miss his explosive takeoff as I passed his favorite cover on my way to the bass stream in the cool of a July morning.

Well, that wasn't a bad bit of grouse shooting for January eighth with the bottom falling out of the thermometer, and especially when the quarry is as wild as it is here. The grouse cover hereabout is a succession of steep, wooded glens and overgrown abandoned fields and brushy flats. Food is abundant, but we are on the fringe of farmland, so that the birds are disturbed just often enough to keep them "on their toes". Old **Bonasas umbellus umbellus** is a wily enough customer at any time, but as we find him here he is the very acme of sporting perfection for the upland hunter. Seven in an hour's hunt; and the daily bag limit two birds! But before you hunt up the Game Protector I'd better make it clear that I have broken no laws whatever. I have just done all that shooting here at my desk where it is nice and warm. You have probably guessed it: I was hunting through last season's diary.

Every hunter knows and admits that much of his enjoyment comes from the anticipation of the hunt as well as from the hunt itself. It is great fun to get out the guns and clean them up, to fill the shell vests with shells, to lay out the wool socks, to waterproof the boots, and to gather with one's cronies to make plans. But there is fun to be had not only in the anticipation and the actuality, but also in retrospect of the hunts of the past.

It is, I believe, quite impossible for a real sportsman to spend a day afield without many delightful experiences. But in the press of modern complexities it is hard to hang on to them for more than a day or two. They are soon so vague that no amount of concentration can call them back. There is a simple, enjoyable solution: keep a diary of your experiences.

I have a large loose-leaf notebook with lined pages, and every evening after a day in the woods or on the stream I sit down and enter into it the events of the day. It does not take long; it is good training; it is a source of lasting satisfaction; quite often, too, it will be found instructive: it may help to cure some shooting fault; or it may suggest a change in equipment; again, it may make a hunter seek a better seat at the table of sportsmanship. To illustrate this I can cite a personal angle: I used to measure the success of the day's hunt by the size of the game bag, but when I sat down in the evening to record the events on paper I began to see a fellow that looked a little bit like a game-hog. Today I often quit after I have bagged one bird, and it is not at all a matter of righteousness on my part; it is, rather, because I recognize the self-imposed limit as sane conservation. I am a selfish conservationist: I want to always be able to find birds when I take the dogs and the gun afield, now and for years to come. . . . Besides, one bird just about fills our little electric roaster.

During the last two seasons I have been fortunate enough to spend all or a part of every day hunting. Each year, too, I have had two full weeks of deer hunting. Add to that many successive days on the trapline and some ninety-seven days on the river and stream with rod and reel. It is obvious that all but a very few of the many interesting and instructive experiences of those days would be in the limbo of forgotten things if they were not recorded day by day. So I have kept a diary. I got the idea from one of the finest woodsmen—a man who verges on the illiterate—whose spelling and grammar are atrocious—but whose awkwardly recorded experiences are a golden storehouse of woods lore.

I can open the terse record and shoot seven grouse in an hour, as you have seen. I can

(Continued on Page 30)

At that moment a grouse flew out well in the open.

# The Wild Turkey in Pennsylvania

Photo by W. L. R. Drake

A wild turkey gobbler struts proudly among his harem in a Pennsylvania woodland.

SINCE the earliest days of colonization, the wild turkey has been closely associated with Pennsylvania history. The bird originally native to the State was the true eastern wild turkey, *Meleagris gallopavo silvestris*. The common domestic, or barnyard turkey, now so widely propagated, is generally believed to have arisen from the live trapping of Mexican turkeys. Limited numbers of these birds, which had been domesticated by the Indians, were taken to Europe by the early explorers. Later generations of them were brought back to the Atlantic Seaboard colonies by the settlers.

Turned out to range on the pioneer farms, many of the domestic birds wandered off with the wild flocks and took up an abode in the forest. In addition, the wild toms sometimes came close to the farmyards and there mated with the tame hens. Thus during the past three centuries, the present stock of wild turkeys has become crossed with various domestic strains, with the ultimate result that it appears virtually certain that there is not likely to be a pure strain of wild turkeys within the Commonwealth.

The range of the wild turkey at the time of the first colonization in America included all of the eastern part of the continent as far north as what is now Boston, southern Ontario and South Dakota. At the time William Penn and his followers settled at Philadelphia, the natural environment in that region supported many wild turkeys. There were vast stretches of virgin forest, including nut and fruit trees in quantities far exceding the demands of the birds living within the wooded areas.

Much like the Indians, the turkey slowly gave way to the destructive influences of the white man. Agriculture and large scale lumbering operations restricted the natural range of the turkey in Penn's woods. At the turn of the Twentieth Century little remained but thousands of acres of brush lands, highly unsuited to the needs of the turkey.

Those who know the wild turkey find it unquestionably the wildest of all game animals in the woods. A glimpse of the bird in its natural surroundings is a sight not easily forgotten. Its body is usually a metalic bronze which reflects a brilliant red and gold-green sheen. Each tail feather is tipped with a chocolate band. The wings are black and bronze-green. The legs are a pinkish-grey, and the body has a streamlined slimness. The male can usually be distinguished from the female by its larger size and longer beard.

The present turkey range is now found in the southern part of Pennsylavnia where the terrain is made up of ridges and valleys. Here are long, narrow-topped mountains extending as far as fifty to one hundred miles, broken only by an occasional gap. The turkey utilizes the parallel mountains and ridges and crosses from one to another in search of food and to escape the hunter.

The typical habitat for the wild turkey is illustrated where two paralleling mountains or ridges are about one-quarter to one-half mile apart and the valley below is composed of approximately seventy per cent forest and thirty per cent cleared land, particularly abandoned farm land.

The most prominent evidence of the beginning of the breeding season is the gobbling of the toms which usually starts in March. Two or more gobblers often flock together except in the breeding season. The turkey is polygamous and fighting often occurs among the old gobblers for the attention of the hens. One gobbler can satisfactorily care for several hens. When old gobblers are present they rarely permit the first year males to breed. Yearling hens breed although their clutch of eggs is usually small. At the beginning of the breeding season the hens may remain with the gobblers for a good portion of the day but as the season advances a shorter and shorter period is spent in his company. This is cauesd by the hens beginning to lay and later to incubate. The hens join their favorite gobbler soon after coming from the roost. The wild gobblers usually complete their breeding activities by the first of June.

The nesting season usually begins around the first week of May and ends about the

Photo by Dr. Apgar

Wild turkeys crossing woodland road.

*Written while a student at the Pennsylvania Game Commission Training School as part of training in report writing.

# By LESTER SHAEFFER*

*Editor's Note: This is the first of a series of articles prepared by students of the Commission's Third Training School as a part of their training program.*

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first week of June. The wild turkey hen selects a site for her nest directly on the ground and preferably under fallen tree tops or overhanging vegetation such as conifer branches, blackberry vines or in smilax and honeysuckle thickets. Many nests are found within a short distance of trails, woods, roads or other openings in the forest. The number of eggs laid by a wild turkey varies from seven to fifteen with the average clutch being about eleven.

There is a tendency for the wild turkey hen when molested to desert her nest, especially during the egg-laying period and in the early stages of incubation. The hen may leave never to return if flushed directly from the nest. However, in the last stages of incubation the hen is difficult to flush, and will often defend her nest. During the early days of the incubation period, the setting hen leaves her nest at frequent intervals for food and water.

The incubation period is about twenty-eight days depending on the weather conditions. After the young are hatched, the hen and her brood remain in the vicinity of the nest and move about very little the first week or ten days. As very young poults are especially subject to chilling the mother hen broods them to protect them from the weather. First year hens are not as capable in caring for their young as are older hens.

Among the most common predators of the wild turkey are the raccoon, opossum, skunks, grey foxes, stray dogs and the great horned owl. Some of the larger hawks may molest the young turkeys. It is likely that only a reasonable amount of predator control is needed.

Photo by W. L. R. Drake

Mother wild turkey on nest within natural propagating area.

The only serious disease noted among wild turkeys living a free life in the wild is blackhead. It is probable that this disease is acquired from contact with domestic turkeys or free ranging chickens. To lessen the likelihood of blackhead becoming an epidemic, it is recommended that farmers be discouraged from rearing either chickens or domestic turkeys by the free range method within turkey ranges. In addition food patches should be made as large as possible and changed from year to year to prevent undue fouling.

The wild turkey feeds on the fruits or "mast" of trees and shrubs during the winter. Acorns from many species of oaks, mast from beech, fruits of smilax, black gum, flowering dogwood, wild grapes, and seeds of several pines are included in their winter diet. Before the disappearance of the chestnut wild turkeys fed extensively upon the mast from this species. During the summer both the young and old feed on a wide variety of insects and other animal life, as well as on such fruits as blackberry, dewberry, huckleberry, and other fruits which the country may afford.

Perhaps one of the big factors in the disappearance of the wild turkey was the lack of protection and over-shooting. There was a time in this State when a hunter could go out and shoot them in any manner and number that he desired. As the turkey began to appear in lesser numbers more rigid laws were put into effect. Unfortunately, in some localities a great many young turkeys were shot before the season opened, while some gobblers were killed after it closed. Protection therefore began to play an important role in the management.

Refuges as small as one thousand to two thousand acres have at times protected fairly good stocks of wild turkeys for adjacent range. Some authorities may disagree that such refuges are too small, but it is believed more careful management can be given to smaller refuges than large ones. By encouraging the right food and cover it may be possible to prevent the turkeys from ranging too widely. One turkey to forty-five acres would be an excellent population on well managed areas.

In the management practices of our State Game Lands the growth of most food and cover species can be encouraged by thinning out the undesirable species. At the same time many of these practices will greatly enhance grouse food and cover. The planting of food plots to buckwheat, wheat, and millet will provide green vegetation throughout the winter and early spring for the turkey, which is a very important item in its diet. These food plots should be so located that they will be as accessible as possible to the Game

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Photo by D. L. Batcheler

The State Wild Turkey Farm, supplemented by numerous natural propagating areas, insures a constant annual supply of good, wild stock.

# A SUMMARY OF SPECIAL GAME

Nice trophy bagged in Potter County by Wallace Hengey, Coopersburg, December 3, 1940. A Taxidermy Board makes sure each taxidermist knows his business before he is issued a license.

FROM the time the Pennsylvania Game Commission was established in 1895 laws have been enacted providing for the issuance of special game permits regulating the control of taxidermy work, propagation of game birds and animals for commercial purposes, etc. These special provisions are not revenue measures, but primarily registration and control measures. The income from this sale which approximates $14,000 annually, only covers the major part of the expenses of issuing them.

There are 17 different kinds of permits, other than non-paid permits, and three special tags which exercise a measure of control over certain pursuits that have a direct bearing on the work of the Commission as follows:

## SPECIAL GAME PERMITS

### TAXIDERMY PERMITS

**Fee $25.00**

Persons who desire to practice taxidermy in Pennsylvania for profit are required to take an examination and pass with a satisfactory grade before a permit can be issued. Such examinations are conducted by a Taxidermy Examining Board, consisting of three members, appointed by the Commission, who are expert taxidermists officially connected with the Commonwealth's leading public museums. Persons who held taxidermy permits which expired May 31, 1937 were not subject to an examination provided they applied promptly for a permit. However, any taxidermist who allows this permit to lapse for one or more years must take an examination, unless such person was previously examined and approved by the Taxidermy Board. None will be issued a renewal without and examination if two or more legitimate complaints have been received concerning the quality of work done ruring the preceding twelve months.

Branch offices may be established within close proximity to the licensed taxidermist's headquarters for the convenience of sportsmen where specimens might be received and turned over for mounting, but no mounting shall be done by them except under the direct supervision of the licensed taxidermist. Furthermore, no licensed taxidermist may lawfully appoint unlicensed agents throughout the State for the express purpose of receiving specimens and shipping them to a taxidermist for mounting, unless it is done with the understanding that the agent never has in his possession more than the current possession limit of game for an individual. Furthermore all taxidermists are urged to carry proper insurance to protect specimens in their hands against loss, so that in case of a fire or other recoverable loss proper reimbursement can be made to the owners thereof.

### COMMERCIAL GAME PROPAGATION PERMIT

**Fee $5.00**

Permits to propagate game authorizes the holder thereof or his assistants to have in possession and to breed or raise game of any kind, and to sell or barter or give away the same, dead or alive, or the eggs of game birds, at any time. Game may be bred and released for stocking purposes in a wild state or sold to the Commission, or bred and raised for home consumption on the premises only without a propagating permit. A Game Propagating Permit is required to cover all pheasants ordinarily used for shooting and restocking purposes, which include all breeds of "ringneck" pheasants (Chinese, Japanese, Formosian, and Mongolian), the English Blackneck, Melanistic Mutant, and the Versicolor. No permit is required to raise pheasants other than these, or purely aviary species of pheasants, due to the fact that such birds are not found in a wild state or considered game in this Commonwealth.

Commercial propagators of small game may use premises of such size as is best suited for their purposes, so long as they are surrounded by a tight, woven wire fence, with a mesh of two inches, and not less than six feet high. Premises for propagating deer must be surrounded by a wire fence of approved pattern, with a height of not less than eight feet, so constructed and maintained as to absolutely prevent wild elk or deer from entering.

Permits must be secured at the time the breeders are purchased, even though the business might only be carried on experimentally for a year or more, during which time there would be no game birds or mammals offered for sale. Before live game of any kind raised under authority of any propagating permit may be shipped out of the Commonwealth, it must be offered to the Commission for propagating purposes. If not purchased by the Commission, it may be shipped to any other state or nation if properly tagged as required by law. Game so raised, when dead, may be shipped anywhere if tagged properly.

All breeding stock must be secured in a lawful manner, namely, purchased from a licensed dealer within or without the State. The only exception to this regulation is the raccoon. These game mammals may be lawfully taken alive during the open season and retained indefinitely provided the owner thereof applies to the Director of the Commission for a permit within five (5) days after the close of the season, which permit is issued without charge.

Even though a person may not propagate migratory game birds for commercial purposes, but may under certain conditions possess them (for which a Propagating Permit is not required), it is necessary to secure from the U. S. Department of the Interior, Fish and Wildlife Service, Washington, D. C., a Possession Permit, which is issued without charge. Mallard ducks more than two generations removed from the wild state no longer come under the regulations of the Game Law. In other words their status is the same as that of domestic poultry.

### COMMERCIAL FUR-FARMING PERMIT

**Fee $5.00**

This permit authorizes the holder thereof to propagate animals classed as fur-bearing animals, which includes minks, muskrats, opossums, otters, skunks and beavers in an enclosure or pen for commercial purposes. No Fur-Farming Permit is required to cover any of these species during the time protection is entirely removed by Commission action or by the Legislature. Breeding stock must be purchased from a licensed dealer within or without the Commonwealth, or taken alive (beavers excepted) during the open season for taking such animals in Pennsylvania. Permits must be secured at the time the breeders are purchased.

Two kinds of permits may be issued. One covers fur-bearing animals raised in pens, or approved fenced enclosures, under which

Licenses are necessary to propagate pheasants for commercial purposes. The above birds were raised for release by a sportsmen's club.

# AND MISCELLANEOUS PERMITS

## By Nelson E. Slaybaugh

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plan of operation the animals may be sold, or given away, and shipped alive, or may be killed and pelted within said enclosure **without regard to sex or numbers at any time of the year**, under rules and regulations established by the Game Law.

The other authorizes the holder to operate a fur farm on marshes or other areas naturally inhabited or stocked with muskrats, without fencing. Fur-bearing animals raised under a permit, on a marsh or other area not fenced, but posted as required by law **may be killed or pelted only during the OPEN season for the taking of such animals in Pennsylvania.** Under a permit of this kind (marsh land not fenced) the Commission may issue a permit to the permittee to capture alive, for exchange of breeding purposes, not more than ten muskrats of both sexes in any one year. Before any fur-bearing animals may be removed from the enclosure, the permittee must secure from the Commission a tag which is supplied at cost.

### FUR DEALERS' PERMITS

**Resident Fur Dealer's Permit - Fee $10.00**

This permit authorizes the holder thereof to purchase or receive raw furs in Pennsylvania for commercial purposes. Only the names of bona fide members of a firm may be included on a $10.00 permit, and regardless of the number of names on a permit, not over one person may be on the road at the same time purchasing or receiving raw furs for commercial purposes. However, a member of the firm can purchase or receive at the regularly established place of business while another member of the firm is on the road.

**Employe's Permit - Fee $5.00**

Employes of fur dealers who hold resident Fur Dealer's Permits, and operate from the established place of business of such permittee, may be issued a Special Employe's Permit, upon application submitted by the employer, which shall authorize them to purchase or receive raw furs anywhere in the Commonwealth. **The Commission interprets "employes" to mean a person employed by a licensed fur dealer on a per diem or salaried basis the year round, or at least during the period when raw furs are purchased for commercial purposes.**

### REGULATED SHOOTING GROUNDS PERMIT

**Minimum Fee - $25.00**

Any person, association or corporation in possession of this permit may enjoy certain shooting rights beginning with the general statewide open season for small game and continuing to December 31, next following. This applies only to pheasants, chukar partridges, mallard and black ducks.

No Regulated Shooting Grounds Permit may be issued for less than one hundred acres in one tract of land, or land and water combined. Under the provisions of the law the permittee must propagate, or purchase, and release annually a minimum of one hundred of any of the following species of game birds, namely, pheasants, chukar partridges, or mallard or black ducks.

The boundary of the premises so licensed shall be marked by a single strand of wire or other fence, and shall be posted with printed notices not more than one hundred yards apart and containing such wording as the Commission may prescribe.

**Shooting Restrictions**

Such permits entitle the holder or holders thereof, and their guests, to shoot up to seventy five percent of the pheasants and chukar partridges, and ninety percent of the mallard or black ducks, propagated or purchased and released on the premises each year. Releases may be made any time between January 1 and December 31, and govern the shooting quota for that year. All species of game other than those for which the permit has been issued, may be taken on said premises only under the general provisions of the law governing seasons, bag limits, etc. A Resident or Non-Resident Hunter's License for the current year is required in all cases.

All game birds released on said regulated shooting grounds shall be full-winged and fully able to care for themselves in a wild state, and whenever the Commission deems it desirable, all mature birds shall at the time of release bear a metal leg band of a type approved by it. **Holders of Regulated Shooting Grounds Permits are requested to give our District Game Protectors advance notice relative to all releases, thus making it possible for our officers to certify releases, as, they must satisfy themselves the releases were made as reported by the permittee.**

Before any propagated or released game killed under the provisions of a Regulated Shooting Grounds Permit may be consumed on the premises or removed therefrom, **the permittee must attach a tag to each bird killed**, such tags to be numbered consecutively and supplied by the Commission at reasonable cost.

**Dogs May be Trained**

Dogs may be trained or field trials may be held without a Field Trial Permit at any time of the year upon the premises covered by a Regulated Shooting Grounds Permit, and Retriever Trials may be conducted thereon; but no game birds shall be killed while so training dogs, or conducting retriever or field trials, except during the open season established for regulated shooting grounds. A Retriever Trial Permit is required to conduct a Retriever Trial thereon at any other period than that fixed for shooting on regulated shooting grounds. Pheasants, chukar partridges and mallard or black ducks killed while training dogs, or conducting a retriever or field trial, on premises licensed as a regulated shooting grounds, must be included as part of the allowable kill thereon for that year, and tagged accordingly.

This permit must not be construed as a Commercial Game Propagating Permit, and the holder must not under any circumstances sell or attempt to sell any surplus birds without first securing a Commercial Game Propagating Permit, the fee for which is $5.00. The only exception would be birds sold to the Commission.

### FIELD TRIAL PERMITS

**Fee $5.00**

The holder of this permit is authorized by law to hold field meets or trials, where dogs are permitted to work on liberated or native wild game in exhibition or contest, provided due diligence is exercised by those directing such meet, or participating therein, to prevent injury or the killing of the game being pursued, at any time during daylight hours during the time such permits may be issued, namely, from the close of the dog training season to April 15. It is also lawful to hold field meets or trials for dogs with led game animals or with drags at any time between

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Permits are required to hold Retriever Trials.

# Notes on the Summer Food Habits of the Beaver

By DAVID B. COOK*

DESPITE the voluminous literature concerning the beaver, very little specific information is available about its summer food. Most writers content themselves with a generalized statement that, in summer, beaver eat "many kinds of vegetation". This lack of detail may be due, in part, to the inherent difficulties of such study, which requires careful and close-range observations on wild beaver, usually at dusk or after dark. It seems proper, therefore, to record some specific observations.

During the eight summers from 1933 to 1940, I made a careful study of the summer feeding habits of the beaver that live on my forest near Stephentown Center, Rensselaer County, New York. This colony occupies a series of three ponds on Black River, a boisterous stream that drains the south part of the Grit Plateau. The area is characterized by rough topography, a cool climate and an acid soil. The immediate vicinity of these ponds was formerly farm land. Abandonment and subsequent reversion clothed the old pastures with pioneer stands of aspen *(Populus tremuloides)*, grey birch *(Betula populifolia)*, red maple *(Acer rubrum)* and black cherry *(Prunus serotina)*, with a scanty undergrowth of ferns, briars, viburnums and hardwood tree reproduction. Old meadows are sodded with panic grass *(Panicum)* and poverty grass *(Danthonia)*, admixed with goldenrod *(Solidago)*, asters *(Aster)* and steeplebush *(Spirea)*. A patch of ground formerly in garden has a sod of white clover *(Trifolium)*. Along the pond margins tree-cutting for winter food soon opened up the woods and stimulated the undergrowth. Altho the beaver traveled as much as an hundred yards up the bank for winter wood and cut over about nine acres of upland forest in securing it, their summer feeding was confined to the immediate vicinity of their ponds.

From the onset of spring until the frost kills the green vegetation, the beaver feed largely on the tops and roots of the small woody plants, perennials and herbs that grow along the edge of the ponds. One important item is the root-suckers of aspen, which spring up abundantly whenever the big trees are cut. These may be about the bigness of a pencil and are eaten from the butt end—wood, bark, leaves and all—much as a man eats celery and with equal noise. Pussy willow *(Salix discolor)* and alder *(Alnus)* are also favored, as are the seedlings and sprouts of red maple and shadbush *(Amelanchier)*.

A second and equally important source of food is the rank growth of grasses that springs up on the muddy pond margins, both above and below the waterline. These the beaver pull up entire, eating both tops and rhizomes. Discarded material may be found floating at favored feeding places. As a beaver can make an ample meal from a square yard of such grass, it is apparent that the supply far exceeds the demand. In the Black River ponds, rice cut grass *(Homalocenchrus oryzoides)* makes up the bulk of this sward, with small amounts of the blunt spike rush *(Eleocharis obtusa)* and sallow sedge *(Carex lurida)*. Beaver are fond of white clover, foraging on the stolons much after the fashion of the woodchuck. Some use is also made of the fruiting heads of rushes *(Scirpus atrovirens)* and sedges *(Carex lurida* and *C. crinita)*. In feeding on these, the stems are pulled over and the heads eaten off. Occasionally the flowers of goldenrod *(Solidago rugosa, S. altissima* and *S. serotina)* and *(Aster paniculata)* are eaten.

Other food is secured by dredging. The animal dives to the bottom along the edge of the pond, scoops up a double armful of mud and swims to shore. With the burden clutched to its breast, the beaver waddles awkwardly up onto dry land, flops down the lump of mud and proceeds to paw it over in search of tidbits. These mud-pies, about six inches in diameter, are to be found at favored landing places along the shore. The material dredged up is the sod of the newly-drowned shore. Recognizable food items include the rhizomatic bases of the goldenrods, the roots of bearded short-husk *(Brachyelytrum erectum)* and the fleshy bases of the rushes. The food material is definitely *not* the roots of aquatics. Altho conditions appear favorable for such plants as arrowhead *(Saggitaria)*, pickerel weed *(Pontederia)*, starwort *(Callitriche)*, quillwort *(Isoetes)*, pond lily *(Nymphae)* and pondweed *(Potamogeton)*, none have appeared, altho they do occur in some of the larger neighboring ponds. presumably they are kept out by pressure of a population averaging more than three beaver per acre of water surface.

On the basis of long experience with this particular colony, I estimate that fully half of the summer food is secured from the sward of rice cut grass and associated species, while the remainder is equally divided between the woody plants of the banks and the roots and tubers secured by dredging. Seed heads and flowers are minor items.

**One of the adult beavers of the colony on which the food study was made.**

Photo by Walter J. Schoonmaker, President of the New York State Nature Association.

*Game Research Investigator, Dept. of Conservation, Albany, New York.

# LOG OF RATTLESNAKE SHACK

## By A. B. CHAMPLAIN

*Editor's Note: This is the first of a series of short articles by Mr. Champlain State Botanist, who interestingly and entertainingly presents a series of notes from his camp log-book, in which he has kept notes and sketches each week-end every year for the past ten years.*

A deer camp, a hunting lodge or just a shack in the mountain; they all hold fond recollections of pleasant days and joyous open air activity. The pages of "Game News" have unfolded many tales of outdoor adventures and sport in connection with camp life, and this is as it should be. However, many camps are deserted for months after the "big hunt" is over and news is scarce about the activity of wildlife around our hunting preserves when the land is covered with snow, or later when spring thaws bring on the hot days of summertime. Having spent almost every week-end for ten years or more at our camp in the mountains of Dauphin County, it might be of interest to outdoorsmen to read some of the notes and records of events made during these times.

### Month of July

Wildlife, according to our interpretation, covers more than just game animals or birds. To us it means bugs, bees, or butterflies, snakes, turtles or frogs, or perhaps plants and trees. All of these things are to be found and enjoyed, each according to individual tastes. July is a month for hot weather and storms. The grand, wild beauty of electrical disturbances, and accompanying deluge of rains and winds are best appreciated when experienced in the mountains and valleys. Again, the hot and humid days of this month, retard our desire for great effort and exercise, which, is also doubtless true of the native denizens of the wild wood. We see a few deer at night on our way to camp; the reflected flash of their eyes as they pause for a moment to question our headlights, is about all the glimpse we get. Also, we hear them in the evening across the run from camp, blowing in curiosity at our lights or activities. Most of the mammals observed during July are those nocturnal prowlers which visit the shack area in search of food or are seen enroute to camp.

As in all groups of life, there are black sheep among our wild neighbors, and we have often found our phlox, zinnias, marigolds, petunias, etc., cut and eaten by certain miscreants. Sometimes deer, often woodchucks, and many times rabbits take a toll for our presumption in trying to grow a flower garden in the preserve of the wildfolk. Rabbits love to congregate in the clearing at night as we have often observed with our flashlights—but, when the hunting season is on, there is not "one." They seem to realize when November first is at hand and confine their activities to the vicinity of their burrows. Among the creatures who come frequently to visit our scrap pail during July, the Opossum has been observed most often.

Egg mosses of the tent caterpillar.

There is one misunderstood little mammal whose aerial activities through the shack clearing intrigues us. Wheeling and winging, our bats skimmed the slower moving bugs, beetles and moths from the airways. Superstition has crowded this little flying beast into a corner with old stories about bats getting into your hair, or other false rumors concerning these beneficial insectivorous animals, which can do you no harm.

Our small blue-tailed lizard is in evidence during July, basking in the hot sun or chasing tiny insects that come to its attention. Other reptiles, especially snakes may be met as we tread the trails or paths. Copperheads are recorded frequently during July and an occasional rattler has been tagged, in its journey across the shack estate. We are always alert when harvesting our flower crop, for these deadly reptiles may be taking the shade afforded by a clump of fragrant bergamot, or resting beneath a rose bush. It is a mistaken idea that snakes always like to lie in the sun, especially during hot July days. They too haunt the shady places for relief from old Sol's rays.

The poisonous snakes seem content to do their stalking near the ground, so we have awarded the prize for high climbing to the blacksnake. A great old sour gum tree stands majestically in front of the shack. It has harbored in its time, everything from 'coon and squirrels to birds and hornets. Blacksnakes have played up and down the rugged bark and one July day we were treated to the spectacle of a full grown black rascal descending the vertical trunk, head downward, with easy nonchalance. The house or milk snake also enjoys our property. However, this serpent is harmless, and the stories told of its cow-milking propensities are pure fabrication.

When dusk gathers over the hills and forest, our wood thrush continues to entertain us with its bell-like evening serenade, while the whip-poor-will may be heard and seen these same July evenings. Our private pair of whippoorwills come to the clearing regularly each evening and it is often fun to imitate the male and have his lady love attempt to alight on the person making the call.

In the morning the scarlet tanager drops into our great white oak and warbles his musical ditty; later in the sunshine the humming birds visit the bergamot flowers. Among the warblers of July, we observe the black-throated greens who flit through the foliage with their new family of young birds. We also record the mother Phoebe as starting a new nest under the eaves of the log house, she had laid one egg when noted. We also glimpse the virio, indigo bunting and an occasional oven bird.

Late in the month we are cooking our evening meal over the outdoor fire place. The grasshoppers and crickets were stridulating their evening symphony. Other insects hummed lazily. Suddenly a large object buzzed up to the fire place. Another and another

(Continued on Page 32)

A large Horse-fly.

Adult of Tent Caterpillar, top female; bottom male.

# MEMBERS OF THE PENNSY

CONTINUED F

FRANKLIN G. McINTOSH, Franklin
April 8, 1924 to May 28, 1931

RICHARD E. REITZ, Brookville
April 20, 1926 to Mar. 12, 1935

DR. W. H. MOORE, Philadelphia
July 3, 1931 to Aug. 13, 1935

RALPH L. ECKENSTEIN, Williamsport
Jan. 6, 1932 to Jan. 3, 1935

ERNEST E. HARWOOD, Hazleton
Jan. 6, 1932 to Mar. 19, 1932
Reappointed June 5, 1942-

J. CREVELING, Wilkes-Barre
ar. 19, 1932 to May 6, 1937

SAMUEL CASTNER, Williamsport
F[illegible] 6, 1935 to July 15, 1942

A. W. LEE, JR., Clearfield
Mar. 26, 1935

ROBERT LAMBERTON, Franklin
Mar. 26, 1935

FRANK F
June 22 193

HARRY C. STACKPOLE, St. Marys
June 24, 1927 to Dec. 23, 1931

J. AUGUST BECK, Williamsport
Oct. 22, 1929 to Dec. 23, 1931

DR. SAMUEL H. WILLIAMS, Pittsburgh
Jan. 18, 1932 to Feb. 18, 1935

HOWARD STEWART, Clearfield
Mar. 16, 1932 to Feb. 8, 1935

A. HUNTER WILLIS, Erie
Mar. 16, 1932 to Mar. 12, 1935

nixville
1940

WILLIAM G. FLUKE, Saxton
Oct. 10, 1935 to Dec. 6, 1940

JOHN H. PRICE, Scranton
May 10, 1937 to July 15, 1941

O. BEN. GIPPLE, Harrisburg
Dec. 6, 1940 to July 15, 1941
Reappointed July 7, 1942-

G. I. PHILLIPS, Alexandria
Dec. 6, 1940 to July 15, 1941

# FOX HUNTING NOTES « « By W. NEWBOLD ELY, M. F. H.

### DOGS FOR DEFENSE

AS the Regional Director for Pennsylvania for Army sentry dogs, I shall like to urge all readers to secure all possible dogs for this vital work. The Army has found that a sentry dog will actually take the place of 6 to 8 men, thus releasing that many extra soldiers for service elsewhere. Obviously a dog can detect a stranger at a far greater distance than any human can. As a matter of fact, all hound people have a chance to do their country a real service because foxhounds on account of their scenting prowess have exceptional possibilities. Moonshiners have long realized this and usually keep hounds near their stills to warn them of the approach of revenue men.

The sentry dogs are used in the Army to guard trucks, tanks in depots, airplanes, warehouses, munition dumps, etc. The dogs can detect a saboteur in hiding or on a dark night when the soldier could never do it.

The Germans are using 150,000 sentry dogs and are now supplying the Japanese. Russia also has 50,000 attached to their Army. We have only 67 in training and General Gregory wants 2500 minimum by the end of the year, followed by 5000.

So dig up all suitable dogs you can so they may be immediately put in training. Let's not have "too little and too late" apply to this effort. Any purebred medium size dog will do, the training period is two months, usually. The time per dog a minimum of 1½ hours per day. A large number of trainers have already volunteered and are training Army sentry dogs now. You can help by giving (a) a dog, (b) your services as a trainer, or (c) money. Write Dogs For Defense, 22 E. 60th Street, New York City.

Dogs given for this service become the property of the U. S. Army and will not be returned. When the war is over they will be kept, bred and trained for these duties.

So many people are wondering what they can concretely do for the war effort. Here's something tangible. Get around among your friends and sign up all suitable dogs you can. Then write Dogs For Defense, 22 E 60th Street, New York City, and instructions will be given as to what to do with them.

Our official U. S. Army requirements are as follows:

DEFINITION: A sentry dog is a dog trained to accompany a sentry or guard; to be an extra pair of eyes and ears for the sentry or guard, particularly at night; and to give warning and locate an intruder on command.

TYPE: Any purebred dog of either sex, physically sound, between the ages of one and five years, with characteristics of a watch dog, qualifying under the physical examination and standard inspection of Dogs For Defense, is suitable.

REQUIREMENTS: Sentry dogs must demonstrate complete compliance to the following commands and ability to warn, as follows:

Heel—This phase of the training must insure the dog's being at all times under control of the handler both on and off lead. The dog must stay at heel on the left side of his handler. It is not necessary for him to sit automatically when the handler halts. Absolute steadiness is necessary, rather than perfection of position.

Stay—The dog must stay, on command "Stay" or signal. He may be either in a sitting or down position. He must demonstrate instantaneous response to command or signal. His attitude should be one of complete compliance with the order and he should show no inclination to resent the restraint or become restive until released.

Out—The dog must go out on command "Out" and search in the direction indicated by the handler.

Come—The dog must on the command "Come" return to his handler under all circumstances, and it is advised that the training in this command include coming to the handler regardless of various distractions.

The dog must give warning at all times of the presence of any strangers by coming to attention, barking or growling. All commands used in training must be preceded by the dog's name and shall conform to this standard. This avoids confusion in the training of the dog's future handlers and in case dogs are shifted.

Upon the completion of training, duly appointed qualified agents of Dogs For Defense will examine all dogs on these requirements under various distractions, including gunfire.

The trainer must realize he is training the dog to be worked by someone else. It should be emphasized that no one should be permitted to make friends with the dog except the handlers. A minimum of 1½ hours working period should be given each dog at least five days a week. Some work at night during the latter part of training will be required for this training.

These specifications are approved by and are the requirements of the U. S. Army and must be met exactly in order to qualify as a sentry dog. Remember, any purebred dog (actual papers not necessary), larger than a fox terrier and smaller than a St. Bernard, either sex, 1 to 5 years old. Get owners to donate dogs for the Army. Write Dogs For Defense.

We might mention that the candidates for this work need not be vicious or want to bite strangers. In fact, such dogs might actually be dangerous in this work as they may go for the corporal of the guard, officers of the day, etc. The sentry dog is merely supposed to locate strangers and give warning. If any blood is to be spilled that is what the soldier accompanying the dog has his gun for.

A good way to select candidates from a foxhound kennel is to pick out hounds which bark at strangers when they approach the kennels unaccompanied by someone the hounds know. The commands the sentry dog must obey in his later training are not hard. In fact, some of them are already a part of a well disciplined pack of hounds.

To HEEL, readily taught as hounds stay back of one of the hunt staff or his horse. STAY means that the hound merely has to stay put as a pack does on the edge of a cover before being ordered in. OUT when the sentry dog goes out at this word, and merely seeks a saboteur instead of a fox; and last, COME, is given with the dog's name, which any hound properly handled will do anyway. Obviously the sentry dog must not be gun-shy. Incidentally, in finding out if a dog is gun-shy you should not fire the gun off right next to him. Have somebody go away quite a distance. At each shot reassure the dog and pet him. Let the gunner gradually get nearer with each shot until he has reached a reasonably close distance. Most gun-shy dogs are gun-shy because they have not been properly introduced to gun fire.

As soon as you can locate prospective dogs for Army work you should write your regional director giving full particulars. These Regional Directors are as follows:

New England—G. S. West, 74 State St., Boston, Mass.

New York—Mrs. G. B. St.George, Tuxedo Park, N. Y.

Pennsylvania—W. Newbold Ely, Ambler, Pa.

Maryland—Edward Boswell, 1605 Muncie Bldg., Baltimore, Md.

Kentucky—Mrs. Harkness Edwards, Conerail, Ky.

South Atlantic States—The Misses Shearer, Locust Dale, Va.

Northern Ohio—Dan Hanna, Chardon Road, Willoughby, Ohio.

Michigan—J. S. Sweeney, 1100 Penobscot Bldg., Detroit, Mich.

Illinois—Mrs. Janet Henneberry, 399 Fullerton Parkway, Chicago, Ill.

Minnesota—H. W. Norton, N. Y. Life Bldg., Minneapolis, Minn.

Missouri—M. B. Wallace, Jr., Maplewood, St. Louis, Mo.

Texas—Mrs. Ballinger Mills, 2908 Ave O., Galveston, Texas.

Arizona—Mrs. H. W. York, Alamo Ranch, Tucson, Ariz.

Pacific Coast—E. E. Ferguson, 8285 W. Sunset Blvd., Hollywood, Calif.

If you are not sure of your district write Dogs For Defense, 22 E. 60th Street, New York City. LET'S HELP OUR ARMY GET THESE DOGS THEY NEED.

# ROSEBAY RHODODENDRON

« « By R. B. TROXEL

A real treat for the outdoorsman is to find this striking shrub in full bloom along a mountain stream, with the sun rays coming through the open spaces of the larger trees above and illuminating the umbrella like whorls of glossy evergreen leaves. It is the large simple, leathery leaves clustered at the end of the branches; its shrubbery form and preference for moist habitats, that distinguish it from all other species of trees native to Pennsylvania.

The name Rhododendron is of Greek origin and means Rose tree, but there are many common names given to this handsome plant, in various localities throughout the State such as: Great laurel, Big leaf laurel, Rosebay laurel, Deer tongue laurel, and Buck laurel.

Among the Allegheny Mountains, from Virginia southward the Rosebay rises to a height of forty feet. Here in Pennsylvania the bent trunk is usually short, stiff and crooked, forming dense thickets 5 to 12 feet in height. It is these thickets where the White-tailed deer plays hide and seek with the gunners. It is also true that within these areas the deer find refuge when the snow is deep and food is scarce.

The Rhododendron because of its small size in Pennsylvania does not produce wood of commercial importance. The wood is hard, strong and close grained, and is used in turnery for tool handles; the bark is said to be used domestically for rheumatism and other diseases. Bee-keepers are not pleased with the honey produced from the flowers of this shrub because it is said to be poisonous. The leaves are seldom eaten by cattle and therefore few reports of poisoning are recorded.

Rhododendron.

The plant is highly ornamental because of its evergreen foilage, and it also produces large, cone-like clusters of white or pink to purplish flowers. The plant will thrive in a variety of soils that are moist and free from limestone.

# THE CANINE CORNER

« « By PAUL P. PRUGH

**Mr. Prugh offers a little tribute to a pal in this issue—promises heavier stuff next issue.**

He was only a dog, this pal of mine,
With a shaggy coat, and a friendly whine.
Each night he sat by the kennel gate,
And for my return would anxiously wait.
Though the north wind blew an icy blast
Or the summer sun it's heat waves cast,
At his post he'd stand with a trust sublime.
Only a dog, this pal of mine.

Yes, only a dog, in whose heart entwined,
A love for his master undimmed by time.
His vigil he'd keep, steadfast and true,
And as I approached, his eagerness grew,
As with joyful bark and prancing feet
A more true welcome, I'll never greet,
From any friend, or at any time,
Only a dog, this pal of mine.

Only a dog, and like all his kind,
His hopes, his spirits, ever in prime.
He never complained if his meals were late,
As with wagging tail, he eagerly ate
The bountious feed, or the crust of bread.
A gentle pat on his tousled head,
Was all he asked from time to time.
Only a dog, this pal of mine.

Yes, only a dog, but in rain or shine,
He would never falter in any clime,
Though rain beat down in torrents fast,
Or chilling winds their sleet darts cast.
He'd follow the trail, the elements scorn,
Though the pads of his feet, jagged and torn
By the frozen earth, showed red as wine.
Only a dog, this pal of mine.

Only a dog, so noble and fine
Would put his fate in these hands of mine
While human friends I so of't believed,
Had shunned, rejected, and left me deceived.
Faithful and true, he stood by my side,
Head held high, in his humble pride,
For I was his hero, his very shrine.
Only a dog, this pal of mine.

Yes, only a dog, this pal of mine.
When life's last trail, together we've climbed,
At his master's grave, his head bowed low,
And his doleful eyes, speak their tale of woe,
While men pass by on the busy street,
His silent vigil he will keep.
Ah, a truer friend you will never find.
Yes, he's only a dog, this pal of mine.

# CARING FOR YOUR DOG

« « By EVAN C. STINEMAN

*Editor's Note: The following is a letter addressed to Evan C. Stineman, Deputy Game Protector, South Fork, who in collaboration with Dr. H. B. Prothero, Johnstown, has been writing the dog column in* GAME NEWS *for the past several months; also, Mr. Stineman's reply.*

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"I have a spayed Beagle bitch, a year and a half old, inclined to be gun shy. Last fall when a gun was fired she would come in to me and stay close for about half an hour and then go out again and hunt. Later in the season when in sight she would look around at me (when the gun of another hunter was fired) as much as to say, is it all right. Never at any time has she attempted to high ball it for home as I understand many gun shy dogs do. She has a very good nose, trails good and is very obedient. I have had her from a puppy and know she has never been abused. I would like to correct this trouble if possible, and I have heard of cases where they have been cured."—W. L. Kline, Pittsburgh, Pa.

"From the actions of your Beagle I do not believe she is gun shy as we commonly know the term, but most certainly will turn into a gun shy dog unless properly handled. My suggestion is to follow the rule of "familiarity breeds contempt". Get yourself a cap pistol and each time you feed your dog set off one of the caps, paying no attention to your dog and by your own actions you will tend to convey to her the fact that the sound is

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# CURRENT TOPICS

Hon. Ernest E. Harwood

Through the reappointment of Ernest E. Harwood, Hazleton, to the Pennsylvania Game Commission on June 5, 1942, by Governor Arthur H. James, wildlife conservation gains another enthusiastic worker and the Commission and the sportsmen another seasoned veteran.

Mr. Harwood needs no introduction to readers of the Game News. His previous service with the Commission (one month as a Commissioner, and the remainder as Executive Secretary) from January 6, 1932 to October 31, 1935, to say nothing of his love for hunting, fishing, outdoor life in general, and sportsmen's organization activities, are well known to most of our readers.

He succeeds another veteran sportsman, John H. Price of Scranton, whose term expired some months ago.

## BALDPATE ON 1942 DUCK STAMP

The design for the 1942 duck stamp has been taken from a dry point by A. Lassell Ripley and features the baldpate, or widgeon, according to the U. S. Fish and Wildlife Service. Ninth in the annual series, the new stamp will be placed on sale at all first and second class post offices on July 1. Since the first issue in August, 1934, the duck stamps have become familiar throughout the country. They cost a dollar each and must be purchased by anyone over 16 years old hunting migratory waterfowl. Ninety per cent of the money realized from the sale of duck stamps is used for the purchase and maintenance of waterfowl refuges throughout the country, the remaining ten per cent being used for administration.

## HUNTERS TO GET FIBRE TAGS

**Tons of Tin Saved for War Needs**

To aid National Defense and save money, heavy fibre tags will replace the metal hunting license plates which have been standard in Pennsylvania for many years.

Due to war needs a sufficient amount of tin plate heretofore used in the production of the hunters' license tags was not available this year. Therefore it was necessary for the Commission in cooperation with the Department of Revenue and the Department of Welfare, to look around for a practical substitute which would not interfere with National Defense.

The material which the Commission finally decided upon is the most practical substitute available, namely, a good quality of 20-point vulcanized fibre with moisture resistant qualities of stock ordinarily used for tags or labels attached to meat products held under refrigeration. These tags will be sufficiently durable to withstand rain and snow without deterioration. The new tags will be the same size as heretofore, and for the convenience of those who do not carry their license tags in a holder, sixteen holes will be punched around the edges to enable hunters to fasten them securely to their coats.

Approximately 10 tons of coated tin plate, the amount that would have been required to manufacture the 1942 Hunter's License Tags, will be made available for the prosecution of the war. Furthermore the change from coated tin to vulcanized fibre will result in savings of approximately $12,000 to the sportsmen, exclusive of economies in shipping them to the issuing agents.

## FORMER COMMISSIONER CELEBRATES 80TH BIRTHDAY

William B. McCaleb, well known retired Pennsylvania Railroad official and member of the Pennsylvania Game Commission, while Superintendent of the Philadelphia Division stationed at Harrisburg, from February 8, 1911 to March 20, 1924, was the honored guest at three separate parties commemorating his 80th birthday, and the recipient of three birthday cakes. The first was presented to him on Saturday, May 16, four days before the actual date, by the N. Y. A. of Harrisburg, of which he is Chairman of the Advisory Committee.

The next one was presented at a family gathering sponsored by his sister, Miss Effie McCaleb, on the evening of May 18, at their home, 505 North Front Street, Harrisburg, and the third by his office staff on the afternoon of April 19.

A great many cards and telegrams of congratulations also were sent the former Commissioner, who has two sons in the service—William R. McCaleb, Lieutenant-Commander in the Navy, and Spencer McCaleb, recently enlisted in the Army.

The Game Commission in a telegram extended him heartiest good wishes. Though long retired from active conservation work, he continues to give liberally of his experience and advice. His enthusiasm has not waned, and he thoroughly enjoys trips into various sections of the Commonwealth to note the rapid forward strides in the conservation program he helped to plan.

Albert R. Bachman

Albert R. Bachman, Game Protector (Land Management), Division "D", was recently appointed to the position of Game Land Technician in Division "A", with headquarters at Reading, succeeding Kenneth Wilson, who resigned some months ago. Bachman's home address will be R. D. No. 2, Sinking Springs, Berks County.

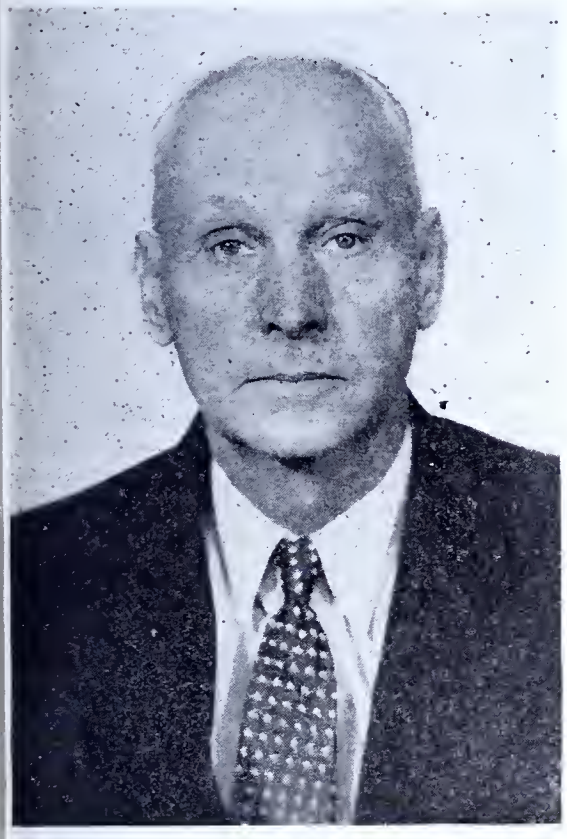
Mr. Bachman was graduated from the Training School in March 1937, and appointed Game Protector in charge of Land Management Group D-7, comprising several tracts of game lands and refuges in southern Bedford County, with headquarters near Rainsburg.

One of the major duties under the new assignment will be that of helping to manage and expand the Cooperative Farm-Game Program in the southeastern part of the State. The Commission is especially anxious for expansion in the acquisition and development of Farm-Game Projects. Field men in Division "A" have done excellent work in connection with this very worthwhile phase of the Commission's program, but other regular duties limit the time which can be devoted to such activities. Bachman is particularly well fitted to assist in broadening the program since he was born and raised on a farm near Hellertown, Northampton County, and is familiar with this section of the State and its people.

The new appointee has shown special aptitude for the Land Management Program, and demonstrated his initiative in furthering it. Like others of the Land Management Protectors, he also had supervision of several WPA projects employing a great many men working on game land development. Carrying on projects such as this requires organizing ability if the work is to be efficiently conducted.

# CURRENT TOPICS

## IN MEMORIAM



E. W. Carpenter

In the passing of Officer E. W. Carpenter, Game Protector Land Management, Jamison City, the Commission lost one of its most faithful and efficient employes. At 63 years of age Mr. Carpenter had but a few months to go to complete 25 years of service with the Commission.

Practical experience he gained in years of service in the tanning and lumbering industries prior to coming with the Commission stood him in good stead as he administered innumerable wildlife conservation activities on the 41,000 acres of State Game Lands under his supervision in Sullivan County. For seven years he guided the full time activities of a CCC camp which constructed roads, trails and feeding shelters and carried on considerable cutting activities. Under his supervision the Sullivan County Archery Preserve was established and maintained in one of the best deer and bear sections in Pennsylvania.

His quiet unassuming disposition won him the friendship and confidence of all whom he met, and all who knew him will deeply miss his ever friendly cooperative presence.

To Mrs. Carpenter, her son, Game Protector Earl Carpenter, and his daughter we wish to express our deepest sympathy.

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"While patrolling for predators on Auxiliary Refuge No. 99 I observed a mature groundhog climbing a white pine tree very easily and quickly. Later I noticed the animal sunning himself in the fork of the tree about 9 feet off the ground."—Game Protector Joseph A. Leiendecker, Division "A", District 2.

## IN MEMORIAM

Wildlife conservation lost a staunch advocate and the sportsmen of Pennsylvania a fine friend through the untimely death of Richard S. Sullenberger, 44, of South Prince Street, Lancaster. He was stricken with a heart attack on his way home from Mechanicsburg where he was employed as a chief field accountant at the Naval Depot.

Sullenberger was secretary of the Lancaster County Federation of Sportsmen's Clubs since its organization in 1934. He was president and secretary of the Lancaster County Sportsmen's Association at one time, and from 1936 to 1940 was secretary of the Southern Division of the State Federation of Sportsmen's Clubs. He was also Chairman of the Legislative Committee of the State Federation of Sportsmen for two terms while the Hon. Grover Ladner served as President.

He was in charge of stream improvement in Lancaster and York Counties, and at one time he was also in charge of game improvement on public and privately-owned lands.

Prior to his position at the Naval Depot he was with the Works Progress Administration for several years on conservation projects. One of his first projects for WPA was as wildlife construction superintendent, under which program he built shelters and improved game lands.

Sullenberger was affiliated with Elizabethtown Lodge, No. 596, LOOM; The American Legion and the Theatrical Brotherhood Association.

He is survived by his wife, Roslyn Alloway Sullenberger, his father, W. L. Sullenberger, a brother, James S. Sullenberger, and a sister, Mrs. Vinette S. Schutte, all of Lancaster.

Richard S. Sullenberger

## IN MEMORIAM

Dr. Thomas E. Winecoff

Many older members of the field and office force of the Commission, as well as numerous sportsmen, will remember well and greatly mourn the loss of Doctor Thomas E. Winecoff, fine old character who served the Commission in numerous capacities from July 16, 1929 until he retired December 31, 1934.

He died rather suddenly at the Williamsport Hospital Friday evening May 29, of a heart condition. He was 74 years of age, and is survived by a daughter, Anna.

Active beyond his years, the Doctor, a retired Episcopal clergyman, first entered the employment of the Commission as a research worker, which activity he directed for several years until that phase of the program was temporarily discontinued. Later he directed his efforts along the lines of education, and spent much of his time lecturing to sportsmen's organizations and schools.

He had an interesting background, having served as U. S. Marshall in Alaska for about seven years; also in the French Army during World War No. 1.

Dr. Winecoff was one of America's foremost scientists. He was a member of the American Association for the Advancement of Science, of the Explorer's Club, of French and Belgian Scientific societies. He was listed in "American Men of Science" and in the "Biographical Encylopedia of America."

His collection of insects mostly *(Lepidoptera)* butterflies and moths, which he accumulated over a period of a half century, are on display in the Smithsonian Institute, the British Museum, and the Paris Museum. In assembling these collections he spent years in Alaska as an explorer, collector of insects and clergyman.

# CURRENT TOPICS

Pvt. Wm. R. Overturf, 6th Bn., Co. B, 1st Platoon, Camp Wheeler, Georgia.

Sgt. Robert D. McDowell, Station Hospital, Fort Myer, Virginia. (We understand that McDowell was just recently promoted to Sgt.)

Pvt. Martin L. Shaffer, Co. A, 1st Platoon, 1st Training Bn., Camp Wheeler, Georgia.

Pvt. James L. Latimer, 431st School Squadron, Napier Field.

Corp. Daniel H. Fackler, DEML Sec., Camp Pickett, Blackstone, Virginia. (Just received word of his promotion).

Pvt. Jackson S. Kepner, Co. A, 726 M.P. Bn., Camp Beauregard, La.

Pvt. Harry W. DeFine, U. S. Coast Guard, Two Rivers, Wisconsin.

Pvt. Roy W. Trexler, Battery C, 13th Bn., F. A. Trig. Regt., Fort Bragg, North Carolina.

Pvt. William C. Grimm, Station Hospital, Camp Stewart, Georgia

Pvt. James S. Arthurs, Hdqrs. Co., 721 M.P. Bn., 12 St. Armory, Norfolk, Virginia.

Pvt. William A. Miller, Battery A, 309 Coast Artillery (BB) Bn., Camp Tyson, Tennessee.

Sgt. David R. Titus, Co. C, 721st Military Police Bn., Drawer H, Lee Hall, Virginia.

Pvt. Gilbert L. Bowman, Co. B, 85th Engineer Bn. (H. P.), Plattsburgh Barracks, New York.

Lieut. Henry H. Schell, Gordon Hotel, 16th & "K" Sts., N. W., Washington, D. C. (Lieut. Schell just received his bar recently after attending Officers' Candidate School, Fort Monmouth, N. J.)

Pvt. Nicholas M. Ruha, 43rd School Squadron, Randolph Field, Texas.

Harold C. Korman (address unknown).

Pvt. Joseph L. Budd, Hdqrs. Detachment, DEML, 58th St. & 1st Ave., Brooklyn, N. Y.

Ralph E. Flaugh, PhM2c, Naval Dispensary, Indian Head, Maryland.

Leonard Buck (address unknown).

Clyde Myers (address unknown).

William Frederick (address unknown).

Leonard Burke, Temporary Employe (address unknown).

Pvt. Albert A. Wargo, 385 Bomb c/o 97th Bomb, Will Rogers Field, Oklahoma City, Oklahoma.

Pvt. Robert E. Latimer, A-52, F.A.R.C. Tr. 632, Fort Bragg, North Carolina.

George W. Koehler, Battery B, Fourteenth B. N., F.A.R.C., Fort Bragg, N. C.

C. Gordon Krieble, U. S. Naval Construction Training Center, Camp Allen, Norfolk, Virginia.

### RELATIVES OF COMMISSION EMPLOYEES NOW IN SERVICE

Robert Hunsinger, son of Refuge Keeper Ernest Hunsinger, Potter County, now stationed at Schofield Barracks, Territory of Hawaii. He enlisted in the Army on October 8, 1940.

Kenneth E. Reeser, husband of Margaret M. Reeser, Division of Law Enforcement, Harrisburg Office. Private Reeser is in the Air Corps, 714 Ordnance Compnay, Langley Field, Virginia.

Luther K. Walmer, husband of Marjorie Glenn Walmer, former employe of Division of Land Management, Harrisburg Office. Private Walmer is now serving in the Quartermaster Replacement Training Center, Camp Lee, Virginia.

Bud Greenwood, son of Earl S. Greenwood, Superintendent of Loyalsock State Game Farm, recently graduated from the Great Lakes Naval Training School with the title of Hospital Assistant, Second Class, and has been transferred to the Philadelphia Naval Hospital.

Kenneth W. Myers, husband of Martha Trullinger Myers, Division of Public Information, Harrisburg Office. Private Myers is with the 135th Engineers, Headquarters & Supply Company.

**These pages are devoted to the Commission's employees and members of their families in the Service. A complete roster follows, together with excerpts from letters from some of the boys, and photos of those more recently to enter the Armed Forces.**

## NOTES FROM THE BOYS

May 7.—"I do like the Army, so far. The training I had in the Training School under your supervision has proven valuable, and will prove even more so, as time passes. I find life here somewhat similar to that up there at school."

"I find myself entirely lost, almost, as to the vegetation, i. e., trees, etc., here, as its a vast change from Pennsylvania. Nothing but pines and a lot of others I don't know."

"Have been informed that Overturf is here. I've tried to locate him, but failed so far; but I haven't given up."

"I have three brothers who were drafted the same time I was. Uncle Sam surely 'cleaned house' at my home, as far as boys are concerned anyway."—Martin L. Shaffer, Company H, 1st Platoon, 1st Tng. Bn., Camp Wheeler, Georgia.

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April 19.—"I am sorry that I neglected to write sooner, but my Uncle has me on the run, and I am neglecting my letter writing."

"I want to suggest that you have Military Drill and Manual of Arms in the next Training School class. You have no idea how thankful I am that we received this instruction in the last class."—Roy W. Trexler, Fort Bragg, North Carolina.

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April 26.—"Well, I'm in a balloon barrage outfit. The men here are a good lot, and the camp is located in the mountains. So you see I am pretty well contented."

"We are known as a gypsy outfit, moving around a lot. Right now we will be here eight weeks and then move to wherever we are needed most. I would like to work under McArthur in Australia. There goes Chow call so I'll quit."—"Bill" Miller, Camp Tyson, Tennessee.

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May 7.—"Received your very welcome letters which Mother forwarded to me. My short service in the Army of less than three weeks is long enough to appreciate a letter to the fullest extent from someone back home. Your visit to the School certainly brings back fond memories."

"The first morning down here I had to think of the School and the friendships formed there. When I came out of the barracks I heard the sound of a bird, which I learned to know or at least identify while I was at school. If I remember correctly, it was a Hermit Thrush."

"The typing instruction I received at the School comes in handy, as I have been typing letter extracts, forms, etc."

"It's about time for 'lights out', so I'll close for this time."—Daniel Fackler, DEML Section, 1318 Service Unit, Camp Pickett, Blackstone, Virginia.

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April 25.—"I feel pretty good and sort of like this getting back into routine. We get up at 5:45 A. M. Breakfast 7:00; drills, study or work 'til 11:00; lunch 12:00; drilling or studying from 1:00 'till 4:30; dinner, 5:30; evening recreation until 10:00 P. M then lights out."

"For mess, we all line up in two lines and move up to the counter and get our food cafeteria style. The lines sometimes stretch 125 yards in front of you, but you get served in less than 30 minutes."

"You get all you want to eat. If your first serving wasn't enough you get in line for another."

"That military drill we had sure comes in handy. I don't know what it will mean in the way of promotion, but it might be a deciding factor."—Harry DeFina, Company B-2, Platoon 3, Coast Guard T.S., Curtis Bay, Maryland.

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April 28.—"Arrived here on Sunday. Traveled the 1500 miles in 40 hours. We wern't off of the train once enroute. So far I like army life a lot, and I'm sure the training I received at the Game Commission School is going to help me plenty. The officers here are tops. Write—I am interested in any news from the boys."—"Jack" Kepner, Co. A726 M.P.B.V., Camp Beauregard, Louisiana.

Harry W. DeFina

Jackson S. Kepner

Daniel H. Fackler

Roy W. Trexler

Harold C. Korman

Robert Latimer

Joseph L. Budd

W. R. Overturf

George W. Koehler

April 5.—"I work every day, 48 hours per week. Last week helped to take inventory and worked overtime. Now I am entitled to a day off."

"The birds are returning. Yesterday we had a Scarlet Tanager in the back yard, also a Flicker. I see the Prairie Larks quite frequently. We also have rabbits and squirrels. I am expecting to see a wolf."

"This area was one of the finest wild duck shooting areas in the world, even better than I heard of at Skinny Zeller's, if you know what I mean. There were some good farms but nearly all of them now look as if they should be abandoned. No Berks County around here."

"I am getting my Game News regularly. I would like to receive some of the old bulletins that were published by the Commission."

"Fishing will soon be in full swing. Blue gills weigh 1 pound each. They get lots of bass of 5 to 6 pounds each. Perch weigh about 1 pound each, pickerel 4 to 10 pounds, rainbows up to 10 pounds. We can buy on the market trout (silver), pickerel, smelts, perch, large trout. Smelts were introduced in 1910 as a forage fish for some other fish I don't remember. The other fish disappeared, now we have the smelts size 4 to 10 inches and are they marvelous."

"Remember me to all of the force."—Herbert A. Diehl, 207 Harrison Street, LaPorte, Indiana.

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April 29.—"Still doing business at the same stand and it appears that I'll have another month, more or less, before starting Flight Training. Several fellows were called today but it seems the alphabet gave out before they got to the Rs. Growing impatient."

"Just finished a week's tour of guard duty this morning. When this war is over I'll have to learn all over how to stop a car at a searching station without yelling 'Halt, who's there' and standing at 'raise pistol'."

"Thanks for sending the GAME NEWS last month. It wasn't long after I put them in the Day Room that they looked like they were worn out. There are quite a few Pennsylvanians here and any number of fellows who like to hunt."

"Almost time for lights out and tomorrow is going to be another long day. Regards to all the folks around the office."—"Nic" Ruha, 43rd School Squadron, Randolph Field, Texas.

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May 16—"As you can see by the letterhead I am way down here in the **sunny** south, and believe me it is some hot spot. This sun down here really bears down. They say it hasn't gotten hot here yet, but it is hot enough now to suit me."

"I had quite a trip down here. We were on a special train of 15 pullman coaches, and we had to stay in the coach we were assigned to for the whole trip. We were on the road for 29 hours before we reached our destination, and they didn't tell us where we were going until one hour before we reached our camp."

"If the boys at the Training School think they are getting a lot of things jammed into them this summer, and that is what most of us thought when we were there, just tell them that it was a vacation compared to what we are getting here."

"This is Saturday evening and I am sitting here in the recreation room writing. It is a pretty nice place, but it would be a relief to sink down into a nice soft chair, all we have down here is board benches or hard chairs."

"Mother sent me the Game News so it won't be necessary for you to send me the one about the graduation. Tell all the folks at the office I said hello, and a letter from any one would be appreciated."—"Bill" Overturf, 6th Btn., Company B, First Platoon, Camp Wheeler, Georgia.

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May 8.—"Thanks a lot for your generous offer of magazines. I appreciate it very much. Right now I cannot take advantage of it, as this is only a temporary camp; we have no library or recreation room."

"I showed my copy to some hunters from Pennsylvania and Indiana and they said it was a good magazine. I thought that write-up on graduation day was interesting."

"I'll send you my new address as soon as I find out what it will be; I don't want to miss my copy. If we have a library, I'll bother you for more copies."

"Give my regards to everyone."—Harry DeFina, Company B-2, Platoon 3, Coast Guard T.S., Curtis Bay, Maryland.

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April 12.—"Only three more days until the opening of the Pennsylvania trout season and I'll bet you are all set to persuade a few of those 12 inch Brookies to leave their happy homes. Here's hoping that the big one doesn't get away—best of luck."

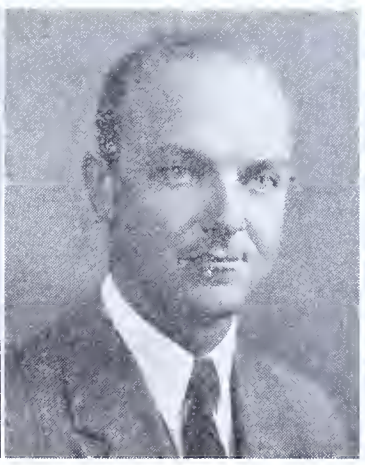
"This country should furnish plenty of sport for the fisherman, that is if the streams and lakes are as good as they look. If we stay here for a month or two I hope to be able to drown a few worms on off week-ends."

"The view across the Lake is especially beautiful—those still snow covered peaks of the Green Mountains of Vermont in the distance almost compare with the Hills of Pennsylvania."

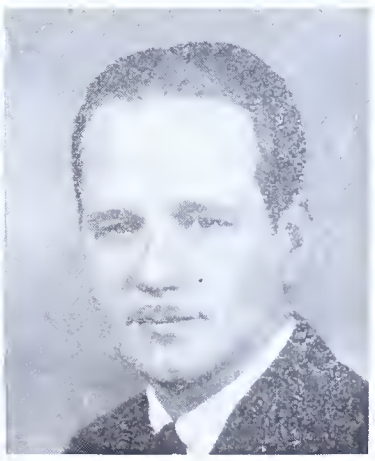
"Our quarters are of brick construction—very modern in every detail with one exception, we still must peel "spuds" by hand."

"Spring seems to be rather bashful in making its appearance in this section. Had about 4 inches of snow yesterday and today is a typical day of blustry March with light snow squalls. Kindly give my regards to the 'Boys of the P. G. C.'"—Gilbert L. Bowman, Company B85, Engineer Bn., Plattsburg Barracks, New York, New York.

James L. Latimer



Gilbert L. Bowman



C. Gordon Krieble

# CURRENT TOPICS

Photo by Arthur Swoger

**Canada Goose nest containing seven eggs at Pymatuning Refuge.**

## FIELD NOTES

"On May 13th, while patrolling in Allegheny Township, I heard a noise at an old sawmill which I thought was a fox or dog fight. Upon investigating I found two large groundhogs engaged in a fight. Finally one of the groundhogs succeeded in getting the best of the other, and the weaker one had to take refuge up a nearby tree. During this fight, the 'chucks paid no attention to me whatever."

"While on patrol in Salem Township on the 23rd, I saw a large Gray Fox cross the road and continue on his way through the field without putting on more speed when he saw my car. He was traveling in the middle of the afternoon, and out of rifle shot."—Game Protector A. J. Zaycosky, Westmoreland County.

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One robin doesn't make a spring, but one lark is often responsible for a fall.

"Quite a number of young ringneck pheasants were seen during the month. On May twenty-sixth while patrolling the western section of this district, I happened to see twelve very young pheasants that by some reason fell into a large hole directly under a big embankment, the mother bird was nearby trying to save them through her many different kinds of actions. I gathered the twelve birds up; took them to safe territory, and the mother bird was right there and took charge of them. I completely covered the hole up so nothing could get in unless the limbs and leaves were removed by some means."—Game Protector Ralph A. Liphart, Allegheny County.

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"On the morning of May 23 (1942), I was advised that flood conditions had hit Hawley, Honesdale, and towns between. Helped evacuate Summer residents along Delaware River, rerouted traffic out of flooded areas east of Milford, and recovered bodies of two flood victims at Rowlands.

"Several people on Milford Bridge informed us that a body was coming down on a log; it turned out to be a large beaver riding down the flooded river, unconcernedly oiling himself or, as one bystander put it, 'washing his face'."—John H. Lohmann, District Game Protector, Pike County.

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"On Wednesday, May 27, a group of sportsmen from the vicinity of Bradford put on a very successful rattlesnake hunt in Corydon Township, McKean County. Mr. Wm. I. Siegfried, photographer for the Buffalo Courier Express also accompanied us. He obtained some very nice pictures of the hunt. We visited two dens and killed 16 snakes, prior to this hunt I killed 34 snakes; making a total of 50 snakes. Last year a little girl was bitten by a snake near these dens and she died a few hours later. Shortly after that the County Commissioners decided to put a bounty of one dollar on rattlesnakes killed in McKean County. No bounty was collected on any of the above snakes."—Game Protector Wm. J. Carpenter, McKean County.

"In April 1930, Mr. William J. Tucker called me into his office and told me to go to Hudspeth County and find out what it would take to bring back the antelope in the Trans-Pecos. When I reported to him what the eagles were doing to the antelope fawns, he gave me instructions to kill off the eagles. Since April, 1930, to the present time I have killed 1338 eagles. I have killed eagles in Hudspeth, Culberson, Jeff Davis, Presidio and Brewster Counties. In June 1930, I killed two old eagles and two young eagles just ready to leave their nest. The old ones had brought 25 antelope fawns to the young eagles to eat from the time they hatched until they were ready to leave the nest. The eagle takes a heavy toll of Big Horn sheep lambs and also the lambs of domestic sheep. The ranchers became interested in the eagle control work for the protection of their lambs and wildlife."—Ray Williams, State Game Warden, Austin, Texas.

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"While patroling (May, 1942) I heard what I believed to be someone calling crows. Upon investigation, I discovered it was a Blue Jay, and he certainly was giving a good imitation."—W. T. Campbell, District Game Protector, Venango County.

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"Evening trips are being made in Refuge 33 (April 30, 1942) to check on wildlife using the food plots and cuttings. Interesting information is being gathered slowly; for instance, a food plot that has not been plowed or changed for five years is patronized just as much as the newer plots. All of the plots are being used. Game seen as follows—Trip one, 30 deer, 6 grouse, 1 rabbit, 1 groundhog; Trip two, 20 deer, 2 grouse, 1 turkey, 1 rabbit; Trip three, 32 deer, 11 grouse, 1 turkey, 8 wild doves. These trips are made just before dark and cover only a small portion of the refuge. About one hour is spent at this work two or three times a week."—Game Protector Elmer Pilling, Centre County.

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Fred Wellman of Lincolnville, Pa., killed an albino raccoon that wandered onto his property and attacked his dog.—Pearle B. Arnold, R. D. No. 4, Union City, Pa.

**An eyesore.**

**Once a dump. Now on its way to providing wildlife environment.**

**These photos clearly depict the text of Mr. Glover's editorial on cleaning up for conservation.**

# CURRENT TOPICS

## BEAVERS PUT FARMER'S BAR POLES TO OWN USE

That modern day cattle rustlers had been at work, was the first thought of Delroy Mathews, well known local farmer, when on Sunday afternoon he went to his pasture along French creek, to salt his cattle pastured there, says the Cambridge Springs Enterprise-News. On entering the pasture, he found that all five bar poles in the fence gateway along the creek were missing.

His first thought was of malicious mischief and he hastened into the pasture to see if the cattle were missing. He soon discovered that all were in the pasture and he then went to investigate the missing bar poles.

He noted at once that the cross pieces on one end which were made of seasoned lumber were all right, but the other end made of green aspen had been gnawed in two at the center. The cut end being identical with the cut made by gnawing beavers.

It was evident that beavers had cut the green cross-bars and had dragged them about 20 feet to the edge of the creek where tracks showed they had pulled them into the creek. The beavers then had evidently floated the poles across the creek to a bayou where they are building a dam.

As his cattle were all in the pasture Delroy says that he and the beavers have agreed to be as good friends as ever, but this morning he was spiking in new bars.—Titusville Herald.

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Many Pennsylvania sportsmen repeat an old superstitious saying that the carrying of the left hind foot of a rabbit will bring good luck. While no attempt at disparaging the charms of the good luck piece is being made, it is of interest to know that according to the legend, the rabbit foot to have any power must be secured in the following manner. Find a large copper penny in the hoof mark of a horse. Make it into a bullet and then kill a rabbit in the dark of the moon in a graveyard at midnight. According to folklore the left hind foot of this rabbit will bring the best of luck if carried by the person making the kill.

In the old days the only catch to the formula was being able to draw a bead on Bre'r Rabbit on a dark night. Nowadays several other little items will make themselves felt in the attempt to garner a luck charm. The Game Protector would have a few words to say about killing rabbits at the witching hour of midnight. There is a definite lack of old fashioned pennies laying around in horse tracks, though horse tracks are becoming increasingly common, and fixing up the old blunderbuss to shoot a homemade copper bullet is a little too much work for most of us.

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In response to our request for records of big game animals set forth on page 32 of the December issue we have received the following from Wallace Hengey, Coopersburg, Pa. Number of points on each horn. Right 5, Left 5; exact locality where killed, Ulysses Township, Potter County; date killed, December 3, 1941; by whom killed, Wallace Hengey; address, Coopersburg, Pa.

Photos Delbert L. Batcheler

**Eight-footed deer killed by James C. Libby, RD #2, Millmont, Pa., in the Patty's Mountain section of Hartley Township, Union County during the season of 1933. These shots are of the two hind feet—the front feet being developed in the same manner but disearded at the time the deer was dressed. Mr. David M. Libby, uncle of the chap making the kill, and a member of the Capitol Police Force, who is shown holding the panel, said his nephew told him the animal showed definite indications of growing two sets of antlers, also.**

Photo property of Delbert L. Batcheler

**Because the above Elk had threatened the lives of children on their way to and from a rural school, as well as other residents in the vicinity of Coburn, Centre County, Pa., it was necessary for the Game Commission to order the men appearing in the photo to dispose of the animal before any serious accident occurred. The Elk, which was killed during the winter of 1916, was in very poor condition, weighing approximately 525 pounds.**

**The employees assigned to the task at the time were left to right: Charles Bateheler, Centre Co. Game Protector; Harry Wingard, Centre Co. Refuge Keeper; "Woody" Kelly, Supervisor, and Charles B. Baum, Investigator. Incidentally, Mr. Baum is the only surviving employee of the Commission. Mr. Wingard is a retired employee, who in all probability can recall many unusual incidents similar to this one.**

# Pennsylvania Bags 700,000 Deer in Ten Years

*Continued from Page 3*

Note the size of the animals and their racks in this 1918 hunting camp picture.

shade out much of the succulent undergrowth upon which the deer love to browse.

Lo and behold! The Commission then began receiving complaints from farmers and orchardists in certain regions that the deer were devastating various crops, and making it impossible to start new orchards. Farsighted officials realized that sooner or later the deer seasons would have to be reversed regularly, say every fourth year, and that instead of hunting only bucks with antlers some of the does also would have to be removed. Such suggestions met with bitter opposition; the hunters had been educated to believe that does were like sacred cows, and that the only way to assure a future deer herd was to save the females at all hazards. A bill in the 1919 Legislature attempting to declare a doe season every fourth year never got out of committee. That fall the kill of bucks reached almost 3,000.

Landowners continued their complaints, and the Legislature in an effort to pacify them set up machinery whereby the Game Commission might furnish wire and staples for deer-proof fences. Since the difficulties were then confined to a few areas only, that seemed like an easy way out. However, it served only to help a few and make matters worse for their neighbors. Some years the $10,0000 fund for this purpose was quickly exhausted, and many applicants had to be turned down. Today Pennsylvania has more than 275 miles of such deer-proof fence erected, at a cost of more than $127,000 from the State Game Fund.

By 1922, when the kill of legal bucks exceeded 6,000, leading sportsmen had finally become convinced that it would be desirable to kill does in certain areas, and the first legal season on female deer was declared in two townships in an apple growing section during the fall of 1923. One hundred permits were issued at $5.00 each, but only eight deer were actually killed. It developed that the majority of the permits had been purchased by those who sought to "save a doe". Various other permit plans were tried in limited areas with only partial success during the three succeeding seasons. In 1926 a total of 1,295 does were so removed, but the kill of bucks that same fall jumped to almost 12,000.

The following year (1927) no open season was declared for does because of a general opposition to a statewide thinning proposal, but something over 14,000 antlered bucks were bagged. By that time the situation had become so critical that it was a question whether the Game Commission of Pennsylvania would survive because it had dared to assume its sworn responsibility to control the deer herd. However the following year it courageously closed the season on bucks for the first time in the history of the Commonwealth, and allowed the killing of antlerless deer only. The total bag was slightly over 25,000. That was an innovation in wildlife management, which attracted countrywide attention, and brought much abuse upon the heads of the members of the commission.

Further growth of the forests shaded out more and more of the deer browse, and the complex problem was rapidly approaching a crisis. Forest reproduction was at a standstill. Idle acres in the forests could not be replanted because the deer destroyed the seedlings as fast as planted; in many areas food and cover for small game, such as ruffed grouse, wild turkeys, varying hares and cottontail rabbits, had been denuded. A "deer line"—the height to which deer can normally reach succulent tree growth—was rapidly becoming evident throughout all of the real deer country.

A few more does were removed in 1930, but by 1931 the Game Commission decided that courageous action alone would save the day. It declared a combined open season for both antlered bucks and antlerless deer. Spike bucks and fawns below a specified weight were kept on the protected list, the former primarily to make hunters look carefully before shooting so as to save human life. That year a total of 95,000 deer were bagged, almost 25,000 of them being antlered bucks.

Immediately throughout the Commonwealth there arose such a storm of protest that the Commission's stability was again in jeopardy. Hunters argued that year would be "the last of the Pennsylvania's deer hunting". However, later events proved that they were wrong, and that the breeding stock was much larger than commonly believed possible. Estimates ran all the way from 600,000 to 1,000,000 animals prior to the 1931 season.

One of the common complaints during every antlerless deer season was that all the "button bucks"—male fawns of that year—would be killed off, and that there would be no bucks for the hunters two years later. However, the figures speak for themselves. The year before the big 1931 clean-up the kill of bucks was 20,115. Two years later, when the male fawns of 1931 would be adorned with legal antlers, the kill was 20,480. As will be noted by reference to the table herewith, this same thing happened the second season following every large kill of antlerless deer, so that argument did not hold water.

In 1937 the Commission attempted to issue permits for the removal of specified numbers of deer from each of the counties in the Commonwealth, but through a technical legal error that season was knocked out in the courts. More than $100,000 in permit fees was refunded. The following year, however, the Commission again reversed the season,

**The animals increased beyond their required food supply and were forced into open lands adjacent their mountain homes.**

prohibited the killing of antlered bucks, and a total of 171,000 antlerless deer by actual count were removed.

As was the case in 1931, deer hunters once more argued that there would never again be a large kill of deer in the Keystone State. The Commission, however, was faced with the problem of bringing the herd under control, **and keeping it within the diminishing forage supply available.** Extensive improvement cutting operations were launched with CCC and WPA and other relief labor, but it was realized that until such time as lumbering operations again became more or less common in the Commonwealth deer browse would not be available in anything like the quantity or quality that prevailed prior to 1920. In 1939, a total of 49,000 antlered bucks were bagged, and in four counties where insufficient deer had been removed the previous year more than 14,500 antlerless deer also were taken in two days at the close of the buck season.

**Part of a more modern camp of doe hunters during the antlerless season of 1928.**

During the spring of 1940 the Commission determined that it would again be compelled to declare a combined season for deer as had been done nine years earlier, but in this instance it was decided to protect only spike bucks to save human life, and to put no restriction on fawns since the little fellows were always the first ones to starve during a severe winter. The weight limit on fawns was unworkable, anyhow. Notwithstanding the heavy kill of 1938, the total 1940 bag, based on tabulated individual reports from 98½% of all the licensed hunters in the State for that year, indicated that 40,995 legal antlered bucks and 145,580 antlerless deer, or a total of 186,575 animals had been taken.

As will be noted from the table, for the 26 years records have been maintained the total of antlered bucks has been 371,627, that of antlerless deer 482,280, or a grand total of 853,970. For the ten-year period starting with 1931, the total was 257,471 antlered bucks and 448,746 antlerless deer, or a combined total of 706,217. The antlerless deer ran about one male to four females, so that during the past decade the kill has been roughly 347,000 males to 359,000 females, or almost fifty-fifty.

Just what the success of the deer hunters will be during the current season will not be known for some months, but in view of the fact that the deer are now widely scattered, there is no tracking snow and hunting conditions are very unfavorable, many of our hunters are in the Service, and thousands of others are tied up with defense industries, it will not be surprising if the kill of bucks this year does not exceed 18,000 to 20,000. However, there will be ample breeding animals left, and past experience indicates that within a few years Pennsylvania again will be compelled to allow the taking of females.

This whole deer problem has been simply one of trying to manage the herd so that the range would not become overstocked. In any State where does are rigidly protected, **and illegal killing is actually reduced to a minimum,** the females are bound to increase rapidly. In view of the fact that approximately as many females as males are born, it is obvious that any state which can so manage its deer herd as to allow the taking of approximately the same number of each sex after the range once becomes adequately stocked will be best off in the long run.

Another sidelight on Pennsylvania's deer problem might be of interest to the readers of OUTDOOR AMERICA. During the earlier years the average weight of our bucks ran from 125 to 150 pounds, hog dressed. Many of them weighed up to 175 pounds and more, and the antlers were then real trophies. In recent years, however, bucks averaged only 115 pounds, the weight of the antlerless deer about 80 pounds. To produce big, handsome animals with racks of antlers that any sportsmen will be proud to hang on the wall of his den requires two things: (1) ample food of the proper quality, and (2) allow the animals to mature before they are killed. So-called inbreeding in the wild seems to be unimportant. The big problem is food!

"How many deer hunters does Pennsylvania have?" you will ask. There is no definite way to separate the small game hunters from the big game hunters, since only one license costing $2.00 for residents and $15.00 for non-residents is required, regardless of the kind of game being hunted. The data collected indicates that as the deer herd increased the number of hunters enjoying this sport likewise doubled rapidly. In 1940 it is estimated that out of a total of 678,000 licensees 300,000 of them hunted deer. During the season now underway for a period of two weeks, it is believed not more than 150,000 will hunt deer for the reasons already indicated. But among them will be more of the hardworking, old-time deer hunters, and while they will not bag as many deer as in previous years, the bucks taken will on the average be larger, in much better physical condition, and naturally the average rack of antlers will provide a finer trophy. Conditions for ruffed grouse, hares and other forest game are also better since there are fewer deer.

A number of other states are now grappling with some of the same problems that faced the Pennsylvania Game Commission during the past 15 or 20 years. Sooner or later they will have to solve their problems in their own way, or they will lose thousands of animals by starvation and disease. Unfortunately the human element—the public relations problem—is always more difficult to handle than is the management of the wild creatures so as to maintain the proper balance between their numbers and their forage supply.

When any herd of big game animals increases beyond its forage supply the sportsmen must either be allowed to crop the surplus or Nature will do it for them in her own cruel way. Deer never starve early in

(Continued on Page 29)

**A wildlife slum results from overgrazed deer range.**

# SPECIAL GAME PERMITS

*Continued from Page 13*

the sixteenth day of April and the nineteenth day of August next following after having secured a permit as herein explained. It is understood, of course, that such permits may also be issued for the same purpose from April 1 to April 15. These permits, unlike other permits, are not valid to May 31, following date of issue, but are valid for only one meet or trial not to exceed five consecutive days as indicated on the permit.

### RETRIEVER TRIAL PERMITS
**Fee $10.00 For Each Day**

The holder of this permit may lawfully hold field meets or trials for retrieving dogs, where the skill of such animal is demonstrated by retrieving dead and wounded game birds or animals which have been propagated or otherwise legally acquired and released on the day of the trials, on premises owned or controlled by the club or individual conducting same, and shot for such purpose, at any time during daylight hours, Sundays excepted, from the fifteenth day of October to the thirty-first day of December next following. The permittee is authorized by law to kill all of the birds or animals specifically released by him on the day of the trials.

The person or persons designated to do the shooting for such trials shall be known as the official gun or guns, and no other person shall be permitted to kill or attempt to kill any of the birds or mammals released for such trials. Before any game killed under the provisions of this permit shall be consumed on the premises or removed therefrom it must be legally tagged.

Permits are valid for only one trial, and a representative of the Commission shall supervise all trials and enforce any rules and regulations governing same. Persons are required to have a hunter's license while participating in such trials.

### FOX HUNTING CLUB PERMIT
**Annual Fee $50.00**

When in possession of this permit it is lawful for any fox hunting club, fox hunting organization, or individual owning and hunting an organized pack of twenty or more fox hounds, to hunt foxes for sport without a hunter's license, from the twentieth day of August to the thirty-first day of March, next following, unless the Commission shall fix a different period for fox hunting in any county as otherwise provided in the Game Law.

No such permit is required of individuals or groups to hunt foxes for sport from the twentieth day of August to the thirty-first day of March next following so long as they do not hunt with organized packs of twenty or more fox hounds; but all such persons must possess a hunter's license.

### SPECIAL DOG TRAINING AREA PERMIT
**Annual Fee $10.00**

Any club or organization having twenty or more members who are citizens of this Commonwealth, or twenty or more citizens of this Commonwealth in possession of this permit may establish and maintain on land owned by them, or over which they have **legal** control, a special dog training area where dogs may be trained at any time during the entire year, but where no hunting or trapping is permitted. Only one permit may be granted to any one organization.

No such dog training area shall be of less than one hundred acres, or more than two hundred fifty acres, nor shall permits be issued for more than four special training areas in any one county. The boundary line of each area shall be plainly and conspicuously posted prior to October first of each year with legible notices at least ten inches by twelve inches in size placed not more than 100 yards apart which shall bear a special notice pertaining to the area.

### FERRET AND FITCH OWNERS' PERMIT
**Fee $5.00 For Each Animal**

If the Commission is satisfied that merchants, grain dealers, fruit dealers, etc., are suffering excessive damage to merchandise, grains, fruits, etc., by rats and all other reasonable control or eradication measures have failed, it will consider applications to lawfully possess ferrets or fitches for the express purpose of controlling rats, but they must not be ordered until a permit is issued. A permit issued for the fee of $5.00 covers only one ferret or fitch.

Fur-farmers must also have a license to raise these valuable creatures for commercial purposes.

### FERRET AND FITCH BREEDERS' PERMIT
**Fee $25.00**

The holder of this permit may lawfully purchase, breed and sell ferrets or fitches to persons authorized by law to retain these animals.

### COLLECTING PERMIT
**Fee $5.00**

This permit authorizes the holder thereof to collect birds, their nests with eggs found therein, and mammals protected by the Game Law, for exhibition in public museums or scientific study or school instructions. They may be issued only to persons of known scientific attainment in either ornithology or mammalogy for scientific study or agents of public museums.

### ROADSIDE MENAGERIE PERMIT
**Fee $5.00**

Any resident in possession of this permit may operate a Roadside Menagerie, which is defined as any place where one or more wild animals are kept in captivity **for the evident purpose of exhibition or attracting trade**, providing the provisions for housing and caring for such wild animals, and for protecting the public, are proper and adequate.

### ARCHERY PRESERVE PERMIT
**Fee $2.00**

Section 936 of the Game Law authorizes the Game Commission to establish two Archery Preserves of not to exceed 1,000 acres each, whereon it shall be unlawful to hunt for, or take game except through the use of a bow and arrow.

One of these preserves is located on State Game Lands No. 13, in Davidson Township, Sullivan County, the other on the Allegheny National Forest, in Hickory Township, Forest County. Permits to hunt on these preserves can be secured from the Game Commission, Harrisburg, or from the offices under whose jurisdiction the preserve comes. They cost $2.00 each for either resident or non-resident hunters and are required in addition to the regular hunting license.

### PERMIT FOR POSSESSING MOUNTED PROTECTED SPECIMENS

Permits for the mounting and possession of mounted birds and mammals accidentally killed can be secured by furnishing sworn statement giving the circumstances surrounding the death of the bird or mammal, and paying a fee of fifty cents for each bird or creature involved, unless the hide or head of the mammal is worth more.

### PERMIT FOR SHIPPING TROPHIES TO OUT-OF-STATE TAXIDERMISTS

Permits to ship game out of the State for mounting or tanning, which the owner desires to retain as a trophy, can be secured free of charge from the Field Division Supervisors of the Commission. The application should state the exact number and kinds of specimens to be shipped, the full name and address of the taxidermist or firm to whom the shipment is to be made, and the full name and address of the person desiring the permit.

### PERMIT TO POSSESS FLESH OF BIG GAME
**Fee $1.00**

Permits for the possession of the flesh of a lawfully killed big game mammal, or part thereof, for a period not to exceed four months following the sixty-day period after the close of the season can be secured for a fee of $1.00. Not more than one big game animal may be included in one permit.

### NON-PAID PERMITS

The Commission issues a number of other permits, without fee, as a control measure only, as follows: Bird Banding Permits; Permits to Remove Wildlife from State Game Refuges and Propagating Areas; Live Game Trapping Permits; and Possession Permits.

# THEY WORE NO GLASSES

*Continued from Page 5*

in Centre County. As Col. Tom Harter, of Bellefonte once said, "When the panthers come into their rocks (dens) the deer leave." Kerstetter's chief delight was to put the panthers on to a defensive war, and had killed fifty, before in his old days he quit big game hunting and came to live with a son in Loganton. Daniel Kerstetter was a medium sized man, with dark Dutch eyes, which positively glowed, a swarthy complexion, while in old age his once black hair and full beard were almost white.

Of the other great Nimrods pictured on the plaque unhappily for the writer he had no personal acquaintance with most of them. They were dead before his time. For example, Edward H. Dickinson, mighty deer slayer, the father of C. W. Dickinson, died in 1890, as did Nelson Gardner, the great elk and deer hunter of Elk County.

LeRoy Lyman of Roulette, Potter County, slayer of 300 Pennsylvania wolves was gored to death by his pet Jersey bull in 1886. He had killed several "red" bears, a color phase of the black variety according to naturalist Samuel N. Rhoads.

Rhoads, also Seth I. Nelson's biographer, said Lyman never killed a panther, through some strange whim of luck, but he was always running into wolves until "he got tired killing them by the dozens and bringing the pups in alive."

James David, the noted surveyor, who used to come to Lock Haven with live panther cubs in the pockets of his leather hunting coat, and had killed one of the last Clinton County elk, in Chapman Township in 1865, died in 1892. David was also a noted wolf hunter.

**Two nice onces killed by Edward Januski and John Coach, members of the Hawk Rod and Gun Club, Larksville, Pa.**

Bill Long, the "King Hunter" of Pennsylvania, died at his Clearfield County home in 1880. He had killed 350 elk, 5,000 deer, 100 panthers, 500 wolves, and 1,500 bears. Such a recorded total has never been chalked up to any other Pennsylvania hunter, as far as known.

Aaron Hall, known as the "lion hunter of the Juniata", slayer of 50 panthers and 100 wolves, died at Unionville, Centre County in 1892. When this writer visited his former home in 1914, the sons had preserved eleven panther hides, also several panther cub skins in their mottled coats.

Also pictured on the plaque are Jesse Hughes, Jake Hammersley, Col. Noah Parker, Reuben Tyrrell, and Lewis Dorman who died before the writer's time, or he was not fortunate enough to have met them, yet their stories and those of many others would make continuous and exciting reading. But the fact remains all these heroes of the days of our vanished big game had robust physiques and the eyes of eagles, and the writer recalls with joy their courteous and genial spirits, real princes of men, natures true noblemen.

It is related of Col. John Yutse, the Bessarabian pioneer of Somerset County, who killed one of the last Pennsylvania bison in the Glades of that county in 1810, he knew his way about in the dark in the forest paths as well as by day. Perhaps with the increased interest in living in the open and the return of our big game we will develop a new race of keen sighted hunters who will equal the heritage of the Nimrods of other days.

# Pennsylvania Bags 700,000 Deer in Ten Years

*Continued from Page 27*

the winter, because under normal conditions their accumulated fat carries them through a considerable portion of the winter with only a limited amount of food. But when the lean months of the late winter and early spring arrive the grim reaper carries them off rapidly wherever succulent browse is not available. Unfortunately where deep snows blanket the deer territory the animals must "yard up" in restricted areas, and they then can utilize very little of the general range. In these yarding centers starvation losses are appalling during severe winters, such as 1935-36, notwithstanding attempts to supply hay, grain and other foods. Under such circumstances it has been found that the most effective temporary remedy is to cut succulent browse for them.

There are many other angles to this interesting problem, but space does not permit us to go into them here. But if you think Pennsylvania's success with deer has been a miracle you are dead wrong. It has been brought about by long-term, courageous action, which also caused many headaches—but the results were worth everyone of them.

**Legal Kill of Deer in Pennsylvania From 1915 to 1940 Inclusive**

| *Year* | *Legal Bucks** | *Antlerless Deer*** |
|---|---|---|
| 1915 ..... | 1,287 | No Open Season |
| 1916 ..... | 1,722 | No Open Season |
| 1917 ..... | 1,725 | No Open Season |
| 1918 ..... | 1,754 | No Open Season |
| 1919 ..... | 2,939 | No Open Season |
| 1920 ..... | 3,300 | No Open Season |
| 1921 ..... | 4,840 | No Open Season |
| 1922 ..... | 6,115 | No Open Season |
| 1923 ..... | 6,452 | 8 |
| 1924 ..... | 7,778 | 126 |
| 1925 ..... | 7,287 | 1,029 |
| 1926 ..... | 11,646 | 1,295 |
| 1927 ..... | 14,374 | No Open Season |
| 1928 ..... | No Open Season | 25,097 |
| 1929 ..... | 22,822 | No Open Season |
| 1930 ..... | 20,115 | 5,979 |
| 1931 ..... | 24,796 | 70,255 |
| 1932 ..... | 19,724 | No Open Season |
| 1933 ..... | 20,480 | No Open Season |
| 1934 ..... | 21,137 | No Open Season |
| 1935 ..... | 23,802 | 46,668 |
| 1936 ..... | 18,084 | No Open Season |
| 1937 ..... | 39,347 | No Open Season |
| 1938 ..... | No Open Season | 171,662 |
| 1939 ..... | 49,106 | 14,581 |
| 1940 ..... | 40,995 | 145,580 |
| Total ... | 371,627 | 482,280 |
| Grand Total ..... | | 853,907 |

*Two or more points ("Y" or better) to one antler beginning in 1923.

**About 1 male to every 4 females.

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The sweet young thing grabbed a taxi the other day and said to the driver: "To the maternity hospital and never mind rushing. I only work there."

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In one large American city thirty-five years ago there were only two automobiles. And—you guessed it—they managed to meet one day in a head-on collision.

Have you heard about the crosseyed teacher who couldn't control her pupils?

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I'm glad to put myself in the other fellow's place if he's got a better place.

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The doctor who diagnoses a case without asking a question is the horse doctor.

Charm is a sort of bloom on a woman. If she has it, she doesn't need to have anything else; if she lacks it, it doesn't matter what else she has.

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Columbia, Tenn., which claims to have the largest outdoor mule market in the world, recently held a mule parade, headed by the Governor.

# NIMROD'S RECORD

*Continued from Page 9*

also give you some less flattering statistics about the misses I have made. To quote from the diary:

Nov. 1st. Raining. Temperature 40 degrees . . . I cut down into a tiny stretch of marsh grass . . . and Sam, my liver and white springer, flushed a fine cock ringneck that rose straight away. I took my time, and shot, but nothing happened; so I pulled the left barrel and a few feathers drifted down. I waited for him to drop, but he climbed over the poplars and flew out of sight across the lake.

Nov. 10th. Snow flurries. Temperature 28 degrees. . . . While I was looking at a 'coon set, a big grouse flew out almost at my feet. I took a hurried shot which mowed down a bit of brush but left the bird unscathed.

Nov. 14th. Cloudy. 34 degrees at 7:30 A. M. . . . 54 degrees at noon. . . . As I left the fox set and walked along a thornapple thicket near the edge of the woods, I stopped to light my pipe again. (I should leave the smelly thing at home.) As I did so a nice grouse burst like a rocket from the far side of the thicket. In great haste I dropped pipe and matches and took a snap shot which buried itself to the last pellet in a large apple limb. Cursing my stupidity, and realizing how seldom one gets a nice open shot in this territory, I broke my gun and reached for another shell; . . . five more grouse burst out, the biggest congregation I have seen all year. Fumbling wildly, I reloaded and threw two shots in their general direction, not having time to even pick out a bird; naturally I missed. Was I LOW!

Combing through the record I discovered that from October twenty-sixth to November twenty-ninth I shot at exactly forty-one birds. This included shots at woodcock during the last four days of the open season on these elusive rascals. Of these forty-one birds I managed to down only thirteen: three woodcock, seven grouse, and three ringnecks. And of these thirteen only one, a ringneck rooster, got away wounded to die in a weed field, where I found him two days later. This, it seems to me, is conclusive proof of the value of a good retrieving dog. One lost bird—and it was no fault of the dogs, for the wounded bird flew across a long narrow lake where we could not follow in the growing dusk. I have several good springer spaniels, and I doubt whether even a wounded field mouse could remain hidden after they have combed through a field or thicket.

Twenty-eight of the forty-one birds at which I shot got safely away, to the patent disgust, of the spaniels. At eleven of these twenty-eight birds I shot both barrels; hence, I actually missed thirty-nine shots. Had I not kept a record of them, I am quite sure that I would never have believed the total so high. It is easy to forget about those misses. Thirteen birds; thirty-nine misses; exactly four shots for each bird. Were this average made on grouse it would not be too bad, for they are wild and well protected by the heavy cover around the cabin. But the score on ringnecks was three out of three; and on woodcock three out of seven; this leaves the grouse average considerably worse than one out of four, but there is no escaping the written record.

Nice missing, without a doubt. Why? According to the diary I missed generally for two reasons: either I was not alert and ready at all times, or I shot too fast without allowing for a proper lead. Furthermore, I should follow the diary's advice and leave that pipe at home, but the odorous old boiler has become as much a part of the hunt as the gun.

Once, during deer season, it probably cost me a nice buck. I was walking up the river trail with a trapper friend. Near the top we surprised a sleeping buck from its bed in a big blow-down. In my haste I pulled the trigger of my .35 caliber Remington with the pipe still sticking out of the wrong side of my mouth and over the comb of the gun. I could not properly see the sights, but I had no time to remove the pipe, so I shot as best I could. The result was disastrous and funny —disastrous to my mouthful of teeth, and everlastingly funny to my friend. The buck, which escaped without harm, must likewise have had a few chuckles.

Yes! Anytime you want a good laugh (at your own expense) or a cry, just take that old diary from the shelf of your gun case and start leafing through its sport-filled pages.

**"Mornin' Warden — I see you got your limit."**

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**Reprinted Courtesy of Science News Letter.**

Most of the sand on our beaches comes from eroded sandstone on the ocean floor.

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The mourning dove, sometimes called turtle dove, is the only game bird that breeds in every State.

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Up to 1942 the war effort cost this country over six billion feet of wood—a need of twelve to fifteen billion feet is estimated for 1942.

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Enough lumber is used in crating a bomber to build a five-room house.

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Wild roses are found in every section of North America from the Arctic circle to Mexico, a Department of Agriculture scientist states.

# THE WILD TURKEY IN PENNSYLVANIA

(Continued from Page 11)

Land Manager, yet serve the needs of the game. The planting of chufas has proven to be of little value in Pennsylvania from a practical standpoint. During the winter the ground is frozen which makes it impossible for the birds to scratch out the tubers.

The use of feeder shelters fits in very well in the management of the turkey, especially during the hard winters when natural food is hard for them to obtain. This feeder should be of a definite type so that the deer will not use the feed before the turkey has a chance to eat it. To overcome this difficulty it would be wise to place the feeder above the reach of deer so that the grain will fall to the ground in small quantities.

A very practical management operation carried on by the Commission is a combination of the Wild Turkey State Game Farm and the Propagation Areas which are established on State Game Lands in the best turkey range of the State. These areas are enclosed with fine mesh wire in which the choice female hens from the Game Farm are placed. The wild toms in the vicinity of the Propagating areas fly into these enclosures, and mate the hens. As soon as the eggs are laid they are collected and taken to the Turkey Farm for incubation. After the young hatch and are reared future breeding stock is selected.

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# CARING FOR YOUR DOG

(Continued from Page 19)

nothing out of the ordinary; also, she will begin to associate the cap fire with food. When you find that she is not flinching in any way you may try using a pistol, rifle and finally a shotgun. Of course it goes without saying not to bang over the head of your dog—stand a respectable distance away when doing your firing. If you have a skeet or trap range handy take your dog for an hour or so and sit in the car with her. When she shows signs of flinching pet her and give her a bit of meat scrap.

I feel sure that this mild treatment will overcome your dog's fear of gun explosion.

I will appreciate you letting me know the outcome."—Evan C. Stineman, South Fork, Penna.

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## Bear Hit By Train, Escapes

"At 9:15 A. M., on May 28th, I was notified that a bear had been struck by a P.R.R. train near Packsaddle that morning. A bear was reported in Indiana County, about two miles north of there the day previous. I got an eye witness account of the accident from a track guard one and one-half miles east of Torrance. When a 'shifter' engine and three cars came to that point shortly after 6:00 A. M., the bear appeared out of the ditch alongside the tracks, tried to scale the rocks to get onto Chestnut Ridge above the train. At that point the rocks have been blasted away and the smooth face allowed no toehold. The bear rolled back down and under the train. After being dragged and bumped considerably, he emerged from between the wheels on the opposite side of the track, hobbled and dragged himself over the bank into the woods between the tracks and the Conemaugh River. A P. R. R. employe accompanied me in trailing the animal."

"Always going west, this bear followed the usual straight-through-and-never-around tactics that made following him a real task in the humid asmosphere. In perhaps 20 minutes we sighted a bear that weighed about 200 pounds. He stood uncertainly in the low brush 60 to 70 yards away. Then he ambled away at a pretty good rate, partially dragging his left hind leg. Before putting him out of misery I wanted to feel certain this valuable game animal would not recover. There was but little blood on the brush and weeds where he had lain for perhaps four hours. We trailed this fellow through tough going, in fine rattlesnake territory, for about four hours. We heard him twice, well ahead of us. In sand, along the old canal parallelling the river. I saw him where he was putting down the toes of the foot of the injured leg. Blood signs became hard to find. We left the trail then, feeling that Mr. Bruin would likely recover. In recent years, sighting a black bear in Westmoreland County has been considered something to shout about."—Game Protector R. D. Reed, Westmoreland County.

## Miscellaneous

If food and cover means anything our future supply of game should be ample. Over a million game food producing trees, shrubs and vines, and evergreen seedlings for game cover and reforestration were planted on State game lands and game refuges during the past Spring. The greater percentage of these seedlings were those which provide food for wildlife.

Through the courtesy of the U. S. Soil Conservation Service almost 87,000 game food producing shrubs were furnished for the aforementioned planting. The material received from the Soil Conservation Service included the following: Hazelnut, 39,500; Flowering Dogwood, 6,700; Black Chokeberry, 5,950; Highbush Cranberry, 950; Snowberry, 4,400; Red Mulberry, 3,500; Japanese Barberry, 800; Japanese Rose, 800; Mountain Ash, 1,950; Black Haw, 11,450; Coralberry, 1,750; Bittersweet, 800; Gray Dogwood, 3,500; Nannyberry, 2,000; Wild Plum, 700; and Silky Dogwood, 2,000.

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Your equipment may not be modern, but is your management as modern as your equipment?

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A large number of people are behind the eight ball because of the natural affinity between it and their heads.

"Darn good dog, but a little too slow"!

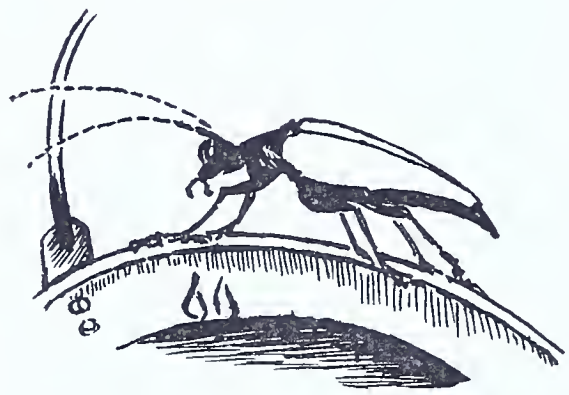
# LOG OF RATTLESNAKE SHACK

*Continued from Page 15*

appeared, alighting on the fire place, on the shack or on the ground, while in the air they circled about. It was the flight of a species of horse fly, rare in our region, and known scientifically as *Tabanus catenatus*. Without determining whether the cooking food, or the wood smoke had attracted these rare flies, or perhaps just "us", we interrupted our culinary activities long enough to capture a nice series of specimens for the State insect collection. The creature is brownish in color and about an inch and a half in length.

Adults of that unmitigated pest of forest and orchard, the common tent caterpillar, fly during July. The adults are little moths which in no way resemble the caterpillars that build the unsightly nests or tents. These moths "bounce" and "buzz" about in an erratic manner when in flight and are strongly attracted to lights. The female moths lay their eggs in masses that encircle the twigs of apple, cherry, etc., upon which they are glued. In this way mother moth places her brood where the young caterpillars will find food when the eggs hatch in the spring.

Our insect collecting activities during July also netted us specimens of that large and handsome night-flying moth, the Catocala. The fore wings of this nocturnal flier are streaked and mottled with sombre colors, the under wings are ornamented with brilliant yellows, reds, and black and white. The adults hide during daytime against the bark of forest trees. The brilliant under wings are hidden and the fore wings match in color, the bark upon which the insect rests. In our bait pail traps, filled with fermenting syrups, we took many specimens of the rare *Leptura emaraginata*. Strikingly handsome, this large beetle is highly prized by insect collectors and is generally very rare. It attains a length of one and one-half inches, has a black head



Leptura Emarginata poses for a moment on the rim of a tin pail.

and thorox, the wing covers being brick red. *Leptura emaraginata* breeds in large standing dead trees, that may be found on the rocky slopes of our mountain side. It is seldom that an adult of this species is captured on the wing.

*Saperda calcarata* is the scientific name of the great poplar borer. The light gray colored adults were captured in July while laying their eggs on the trunks of living Bigtoothed Aspen. In our mountain region this beetle in the larvae stage, contributes greatly to the death and destruction of our various species of poplar trees.

During July the punkies are still evident and other biting flies become more predominant. We get used to these pests after awhile and anyway, if we can forget that they annoy us, we may derive great interest in studying even these insects and their habits. They cannot be eradicated and if we do murder a million or two, there would always be plenty more to take their place.

Early in July we get a treat when the Rhododendron or buck-laurel is in bloom. The plants line the creek in our bottom land and celebrate Independence Day (July 4) by bursting into the blooms as much admired by persons fortunate enough to get into their habitat. In our swamp garden we also record for July the flowering of that delicate little white-fringed orchid, *Habenaria lacera*.

The Huckleberry pickers start their offensive early in July and by the middle of the month, the industry is in full swing. It is quite likely that before the season has ended, we will have inveigled a quart or two from some group of passing pickers to be served with sugar and cream for desert.

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"On Sunday, May 24, I took some salt out and placed it in a well used salt lick. The following Tuesday evening I happened to be near the place so I concealed myself in some brush nearby and waited a little while. I had been there about fifteen minutes when some deer began to come in. Pretty soon there were eight of them and five porcupines. Of the eight deer six were bucks. I had a camera with me and took some pictures."—Robert L. Sinsabaugh, Deputy Game Protector, Roulette, Pa.

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An old fashioned doctor is the kind who tries to find out what's wrong with you, instead of calling in two or three of his friends to discuss the matter.

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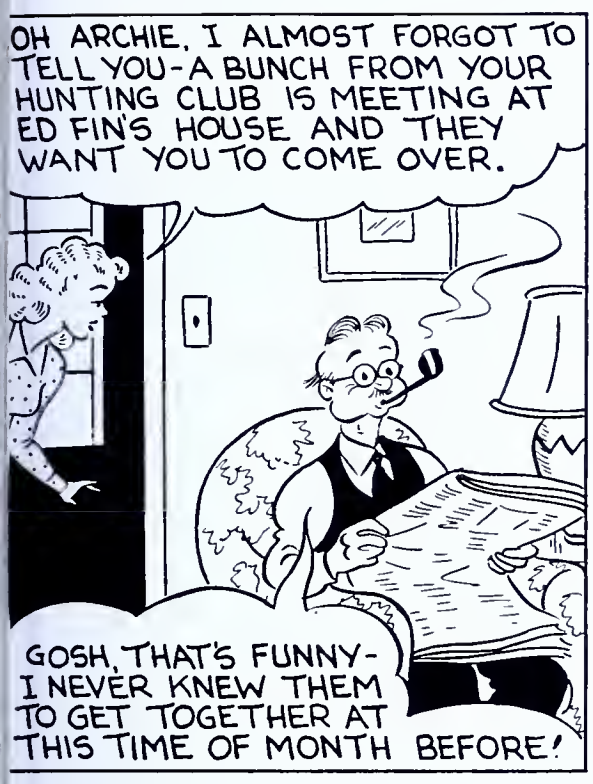
In spite of the expense and loss of time, the bridegroom should accompany the bride on the honeymoon. It may be the last vacation he will ever have.

Adult - Saperda Calcarata "poplar borer."

Bigtooth Aspen (Populus grandidentata) stand injured by poplar borer.

Work of poplar borer in Aspen trunk.


OH ARCHIE, I ALMOST FORGOT TO TELL YOU-A BUNCH FROM YOUR HUNTING CLUB IS MEETING AT ED FIN'S HOUSE AND THEY WANT YOU TO COME OVER.
GOSH, THAT'S FUNNY- I NEVER KNEW THEM TO GET TOGETHER AT THIS TIME OF MONTH BEFORE!

HURRY DEAR, YOU DON'T WANT TO BE LATE!
(HMM, THAT'S ODD-SHE ISN'T USUALLY THIS ANXIOUS FOR ME TO GO!)

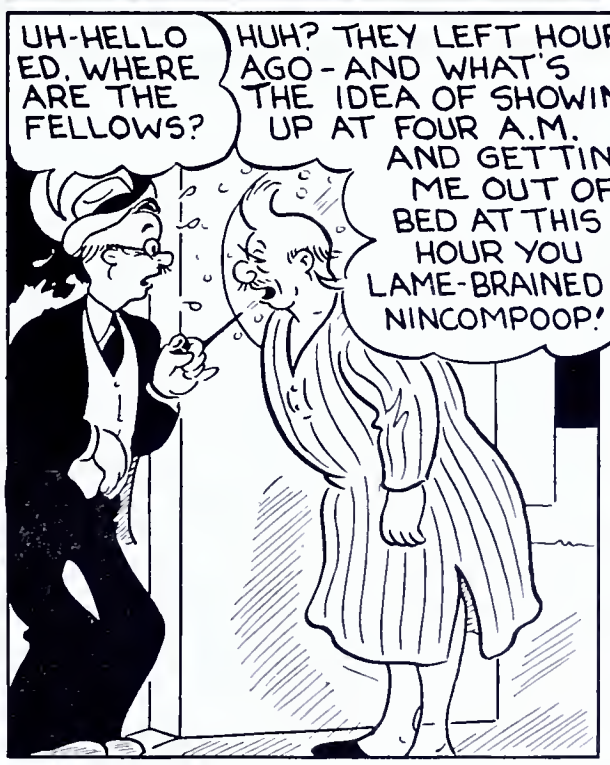
BY GOLLY, I GOT IT-TODAY'S MY BIRTHDAY-I'LL BET THEY'VE PLANNED A SURPRISE PARTY FOR ME AND WANT TO GET ME OUT OF THE HOUSE!

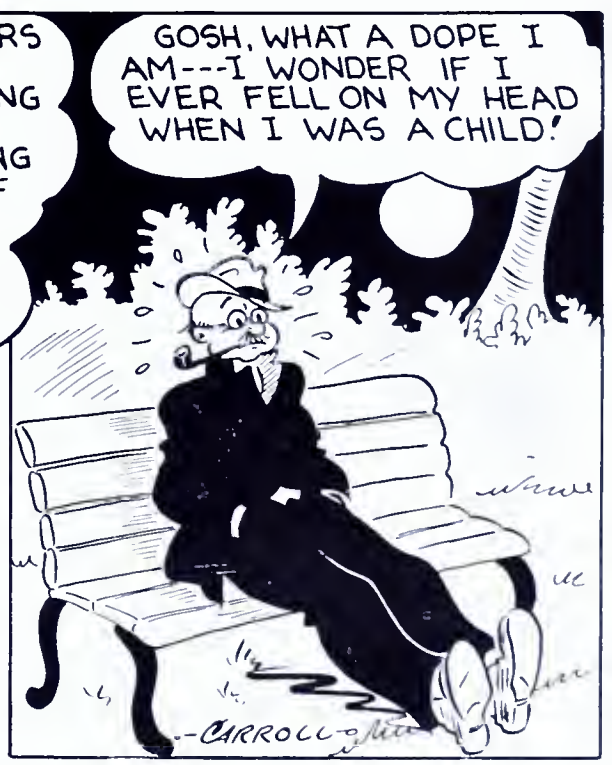
I THINK I'LL SURPRISE THEM-I'LL JUST SIT HERE AND WATCH THEM GO IN, THEN I'LL SNEAK IN THE BACK DOOR AND YELL "BOO" AT THEM!
POST NO BILLS

HOURS LATER!
BY GUM, I'VE BEEN WAITING HERE AN AWFULLY LONG TIME AND NOBODY WENT IN YET-I'M GONNA GO SEE WHAT'S WRONG!

HEY TRUDY-WHERE ARE THEY?-- WHAT KIND OF FRIENDS HAVE I-NOT SHOWING UP AT MY BIRTHDAY PARTY-BLAH, BLAH, BLAH, ETC.!
BIRTHDAY PARTY? WHAT ARE YOU TALKING ABOUT-YOUR BIRTHDAY ISN'T UNTIL NEXT MONTH-WHAT'S THE MATTER WITH YOU?

ARCHIE-- COME BACK HERE AND LET ME SMELL YOUR BREATH-- ARCHIE!!!
SWOOSH


UH-HELLO ED, WHERE ARE THE FELLOWS?
HUH? THEY LEFT HOURS AGO-AND WHAT'S THE IDEA OF SHOWING UP AT FOUR A.M. AND GETTING ME OUT OF BED AT THIS HOUR YOU LAME-BRAINED NINCOMPOOP!


GOSH, WHAT A DOPE I AM---I WONDER IF I EVER FELL ON MY HEAD WHEN I WAS A CHILD!
CARROLL

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AND
# LOYAL AMERICANS

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AND
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# PENNSYLVANIA GAME NEWS

AUGUST 1942

TEN CENTS

# PENNSYLVANIA GAME NEWS

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VOL. XIII, No. 5

# EDITORIAL

AUGUST, 1942

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GOOD INSECTS

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THE CANINE CORNER
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BETWEEN SEASONS
By Paul P. Prugh

*Cover by Robert W. Hines*

## *An Obligation*

★ ★ ★

WILDLIFE is more important as a natural resource today than it ever was in our National history. Accordingly it needs more protection, and sound long-term management, now than ever before. This means every available shoulder must be put to the wheel. Thousands of our boys are now bearing arms; boys who loved to hunt, run a trap line, who helped feed and care for their future sport.

Now they are in the four corners of the world fighting to uphold the principles of democracy. Let us kep faith with them by working all the harder for their interests. As Fall approaches they'll be dreaming of home, of dog and gun, of many happy days afield. May their dreams all come true when they return home, and may they then find the kind of hunting and fishing they have a right to expect.

In any event, let us not be found lacking in our efforts to perpetuate their sport. to keep plugging as we have never plugged before, to keep the program of game restoration alive and moving forward on an even keel so that we'll not be ashamed to face our absent comrades when they return.

I'm going to see that my neighbor's dog gets a little exercise, look over his guns occasionally to see that they're all right, throw a little feed once in a while under the shelters he built and serviced for many years, and take his lad with me, too.

Yes, there's a lot to be done before the boys come marching home, so let's all get busy and do it. Let's truly "keep the home fires burning"!

## HISTORIC

On Pages 16 and 17 of this issue we conclude the historic presentation of Members of the Commission and all Executives and Assistant Executives which we began featuring three months ago. The first two numbers — June and July—carried the portrait of every Commissioner since the department was established in 1896. This month we take pleasure in presenting the Executives and Assistant Executives who have served through the years. In almost every instance the administrative personnel came up through the ranks; in those few instances where they did not, men with wide experience in the conservation, hunting and outdoor fields were selected. That is why the work of the Commission has progressed steadily throughout the years.

Photo by Walter E. Westerfeld

TIME OUT FOR A NAP

(English Setter puppies owned by Harry Turley, near Medix)

# A RICH HERITAGE

## State Game Lands Pass 700,000 Acre Mark... An Enviable Achievement of Keystone Sportsmen

*By W. Gard. Conklin*

★

Photo by Gordon Krieble

**Each block of State Game Lands is given a serial number and posted with signs such as this.**

THE Sportsmen of Pennsylvania today own more land for public hunting grounds and wildlife refuges than any other State in the Union. The aggregate area of State Game Lands passed the 700,000 acre mark on May 29, 1942. On that date settlement was made for a tract containing 661.1 acres in Washington County, purchased from the Harmon Creek Coal Corporation, which became part of State Game Lands No. 117. That tract, secured at the end of the Commonwealth's fiscal year, brought the total area of State Game Lands to 700,306.4 acres, all acquired during the period of 22 years since the land purchase program was started.

In addition to the large acreage for which title has been secured, 83 tracts, totalling approximately 37,800 acres, are under contract for purchase. Titles to these tracts are in various stages of examining, abstracting and perfection of defects preliminary to vesting in the Commonwealth. The boundary lines of a few thousand acres have not been surveyed, but this work will be completed by midsummer.

The acquisition of so large an acreage of good game territory in Pennsylvania is considered a splendid achievement, one in which the sportsmen of the State as well as the Game Commission are justified in taking pride. The question may possibly be asked by persons not closely associated with the hunting fraternity, "Why is this considered an achievement in which to take special pride?" There are many good reasons, the more important of which are briefly mentioned in this article.

One is because the sportsmen themselves, in 1919, proposed this land purchase program, and have borne its entire cost. No part has been or is being paid from general State revenues or other public funds. This statement may not at first glance appear entirely correct since certain Federal Aid in Wildlife Restoration funds have been applied during the past three years to the purchase of lands. However, the origin of these Federal Aid funds is the excise tax on sporting firearms and ammunition, which is paid by sportsmen to the Federal Government, and specifically appropriated by the Congress to aid the States in their wildlife management programs. It is therefore quite correct to say that the entire cost of Pennsylvania's State Game Lands has been and is being borne by sportsmen.

Another reason is that State Game Lands are now located in 61 of the State's 67 counties. To secure any suitable lands in certain of the counties at prices the Commission is justified in paying, considering that they are to be used primarily for wildlife purposes, is no easy task. This is especially true of the more thickly populated agricultural and industrial counties, such as Allegheny, Beaver, Butler, Washington, Bucks, Chester, Lancaster, Montgomery, and a few others. The fact that game lands are now located in all but six counties indicates thoughtful and careful planning on the part of almost 30 game commissioners who have served the sportsmen of the State during this 22 year period.

They have consistently and conscientiously endeavored to distribute these public hunting grounds in all sections of the State so that the needs of all sportsmen would be taken care of insofar as possible. Inability up to the present time to acquire acreages in Dauphin, Adams, Montgomery, Delaware, Philadelphia and Lehigh Counties is regrettable, but nevertheless sportsmen in these counties should not expect the Commission to purchase small areas which might possibly be available, and to pay prices higher than appears justifiable. Lehigh County sportsmen may, however, have their wishes fulfilled before long, since an acquisition project is now under way on the Blue Mountain.

The work involved in a program of this kind, especially by a public agency which must exercise the greatest care to avoid mistakes, is much greater and more exacting than is apparent to most persons. Land purchase options with favorable conditions must be secured from landowners. An examination of each tract must be made and reported upon by officers in the field. Maps showing the boundary lines are practically essential, but as they are often difficult to get must be drafted from old deeds or other information secured by one means or another. Prior to each quarterly meeting of the Commission a tabular report is prepared listing all options to be acted on by the Commissioners, and containing sufficient information with respect to each tract to permit intelligent consideration and action. Purchase contracts are then entered into with the owners of tracts accepted. Titles must then be examined, abstracts typed and reviewed. Boundary lines must be surveyed and maps constructed. Deeds are then prepared and settlements made with the respective landowners. The story can be told in comparatively few words, but execution of the program requires painstaking effort and much time. It all adds up to justify the statement that the acquisition of hundreds of thousands of desirable acres by a public agency represents a real achievement.

The acreage acquired to date cost $2,704,354.45, or a general average of $3.86 per acre. This represents only the money paid to the several thousand landowners involved, and does not include various other items of expense incident to acquisition, as for securing

(Continued on Page 22)

Photo by Gordon Krieble

**All boundary lines around State Game Lands are marked with these signs.**

# The Pennsylvania Cooperative

A Woodcock on a singing ground at night.

THE Pennsylvania Cooperative Wildlife Research Unit was established March 15, 1938, at The Pennsylvania State College. The program is now going into its fifth year of existence. From the beginning the Unit was sponsored and financed by the Pennsylvania Game Commission, The Pennsylvania State College, the U. S. Fish and Wildlife Service, and the American Wildlife Institute. There are nine other similar cooperative wildlife research units located in Land-grant Colleges across the country.

The sponsors of the Pennsylvania Unit had three objectives for the Unit program. They are as follows: (1) Carrying on of research that provides information for the better management of our wildlife resources, (2) dissemination of educational information to the public concerning the wise care and use of our wildlife resources, and (3) training of technical field workers.

The Unit has an advisory board of three members: Mr. Leo K. Couch, Assistant Chief, Division of Wildlife Research, Fish and Wildlife Service, U. S. Department of The Interior; Dr. S. W. Fletcher, Dean, School of Agriculture, The Pennsylvania State College; and Mr. Richard Gerstell, Chief, Division of Propagation and Research, the Pennsylvania Game Commission. The Leader of the Unit is Dr. Logan J. Bennett, Fish and Wildlife Service, U. S. Department of The Interior; and the Assistant Leader is Dr. P. F. English, Associate Professor, Department of Zoology and Entomology, The Pennsylvania State College. All projects of the Unit are in the Pennsylvania Agricultural Experiment Station. The work on any particular projects is done in the department in which the personnel is best trained for that project. Thus, projects closely allied with forestry are done in the Forestry Division, and those projects more closely allied to other departments are carried out in the divisions most capable of doing the work.

This article is a review of the work that has been done to date. Because of wartime problems perhaps many of our research projects should be altered or abandoned, and new ones started to meet radically changing human conditions in order to insure advancement in wildlife management.

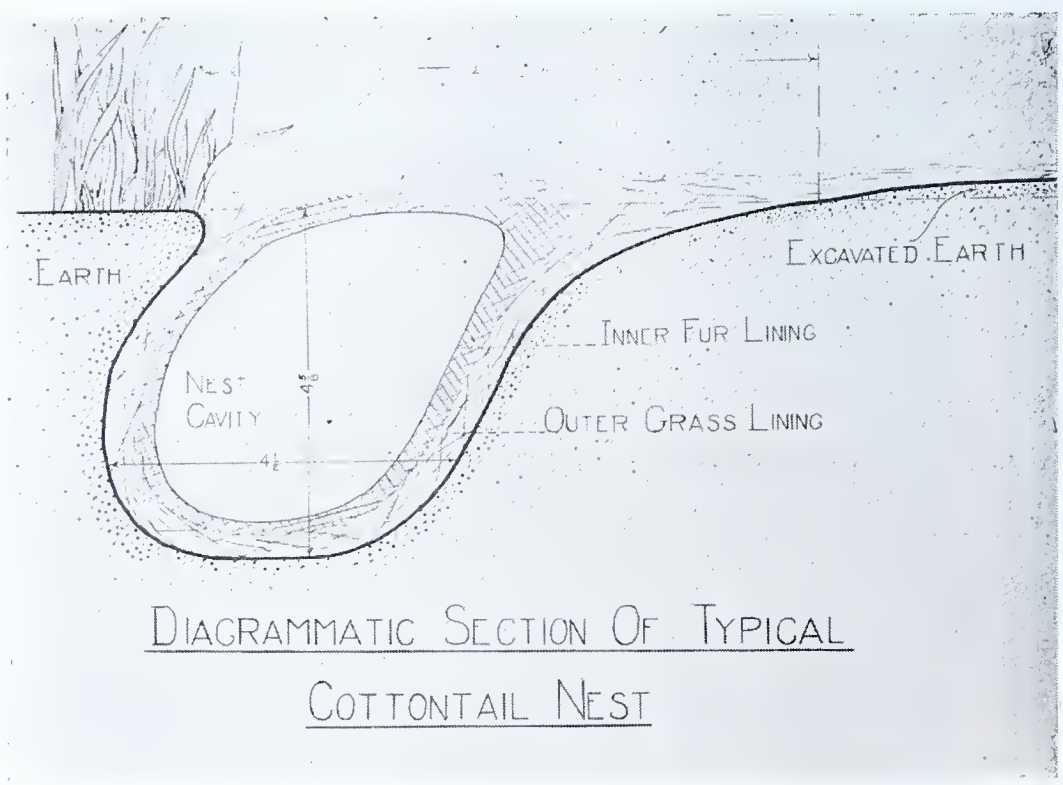
Professor E. W. Callenbach, Department of Poultry Husbandry, first with Winthrop Skoglund and at present with W. C. Stadelman, has worked on the nutrition and incubation of game farm birds—primarily with the ring-necked pheasant. Their main objective has been to develop better and more economical rations for artificially reared birds. They have been very successful in this project and their improved rations are being used at present. Recently they initiated a project to develop a better quail ration. Because of limitations brought about by the war, there are a number of essential constituents that go into present game farm rations that may not be obtainable in the near future. Fish oils and dry skim milk are some of the ration items that may be more difficult to obtain as the war continues. Substitute ingredients are being experimented with at present, and it is hoped that substitute foods will be developed that will be as efficient as the previous rations. Skoglund is now at Delaware State College in charge of poultry work. Stadelman is continuing research work at The Pennsylvania State College.

From 1938 to 1940 intensive field studies on the ring-necked pheasant were carried out in southeastern Pennsylvania by Pierce E. Randall, Graduate Assistant, Department of Zoology and Entomology. The life history and management of the bird were worked out, and many valuable management suggestions came from the investigation. Many phases of this project were reported on at various times in the GAME NEWS. Perhaps the main clue to proper management of the pheasant in Pennsylvania is its tendency to build high populations in areas where there is a large acreage in corn, much of which is left standing over winter. Pheasants prefer corn as food; and they also like to seek rest, protection, and exercise in fields of standing corn.

Tracy M. Kuhn, Graduate Assistant, Department of Forestry, carried on a mast production study in central Pennsylvania in 1938-41. Much valuable information on production and use by the various mast species was obtained. This information will be of use in any forest management program where certain tree and shrub species should be encouraged for wildlife. In connection with this project a study of the fall food habits of the ruffed grouse was carried on. Sportsmen, game protectors, and others sent in the crops from grouse killed during the hunting season. This work indicated what management practices were needed to improve the grouse food supply. One of the interesting phases of this study was the revelation that greenbriar, one of the most important grouse foods, was being eliminated by over-populated deer herds in many parts of the state. Kuhn is now in wood research with the Martin Bomber Company.

Russell T. Norris, Graduate Assistant, Department of Forestry (1938-41) carried on a forest type-wildlife range study of the scrub oak-pitch pine Barrens type in central Pennsylvania. Years of uncontrolled cutting and burning have brought about a number of complex management problems on this forest type. It has been estimated that there are close to three million acres of forest similar to this type throughout the state. This study provided information that will be of use in working out future management programs.

John D. Beule (1938-40 )and Allen T. Studholme (1938-41), Graduate Assistants, Department of Zoology and Entomology, together with Russell T. Norris, (1938-41), Graduate Assistant, Department of Forestry, devised a method of live-trapping American woodcocks on the breeding grounds for banding purposes. Very little is known about the migration of woodcocks because until recently only a few were banded. It is hoped that the trapping method worked out at the Unit will in time aid in providing much information on this important game bird. In addition to the




Photograph of a drawing by John Beule of a typical cottontail nest.

# Wildlife Research Unit

*By Logan J. Bennett*

trapping, spring censuses have been carried out on the same areas for the past three years. This information has been very valuable to the U. S. Fish and Wildlife Service in drawing up recommendations for the shooting season dates. The trapping method has been described and illustrated in the GAME NEWS. For the past two winters Norris has carried on wintering-ground woodcock investigations in Louisiana for the U. S. Fish and Wildlife Service. His intervening time has been spent as an employee of the Preston Laboratories, Butler, Pennsylvania, as a wildlife land manager.

Beule and Studholme also carried on cottontail life history and management studies (1938-41). Some of the best information available on cottontail nesting and rearing was obtained under this project. A report on phases of the cottontail study was published in the June 1942 issue of the GAME NEWS. Beule has been employed by the Pennsylvania Game Commission since 1940 on a continuation of this study at the Loyalsock Experiment Station.

Studholme carried on a ruffed grouse management study in the scrub oak-pitch pine forest type in Pennsylvania. His M.S. degree thesis was on this subject and was entitled "Ruffed Grouse Environment in Scrub Oak-Pitch Pine Forest Type." Studholme has been with the Pennsylvania Game Commission since 1941. In addition to his other duties, he is continuing a ruffed grouse population study on a seasonal basis to obtain information that will be of value to the Commission in determining shooting season dates on this bird.

Dr. W. C. Bramble, Associate Professor, Department of Forestry, has been carrying on a study of silvicultural practices and their effects on deer foods since 1935. Most of his work has been done in the rock oak forest type and the scrub oak-pitch pine forest type. The project has now advanced to the point where important deer management information will be available.

Dr. E. B. Forbes, Head, Institute of Animal Nutrition, and staff completed two fundamental projects (1938-41). One was on the digestive capacities of the white-tailed deer and the other was on the nutrition and chemical composition of forest fruits and nuts. The purpose of these projects was to aid in determining what food species should be encouraged in forest management.

In 1940 a quail management project was started in Franklin County. This project is now two years old. The main objective of this project was to try to determine what management practices would cause a fast population climb after severe losses during bad winters. The project has not progressed to the present where this objective has been attained. The survival of quail in the wild, wild-trapped quail, and game farm quail are being studied on a year-round basis in respect to weather, predation, farming practices, cover, food, and the hunting season. David Jenkins, Graduate Assistant, Department of Forestry, and Ralph I. Blouch, Graduate Assistant, Department of Zoology and Entomology, were until recently the workers on this project. Jenkins is now in the U. S. Army and Blouch is now with the Ford Bomber Company. Mr. Samuel C. Houston, President of the Chambersburg Rod and Gun Club, is now aiding in carrying on this project, due to the lack of graduate assistants because of the war. Mr. W. W. Britton, Game Protector, Chambersburg, is also assisting with the work of the project.

Fred Glover, Graduate Assistant, Department of Zoology and Entomology, has been making a population study of Pennsylvania weasels since 1941. The object of this project is to determine what weasel populations inhabit various cover types and their effect on wildlife. Reports on this project will be presented in the GAME NEWS within the coming year.

Standing corn is the best source of food for pheasants in winter.

Dean Ward Tanner began a wild turkey management study in July 1941. In October 1941 he was called into the armed forces. Edward L. Kozicky, Graduate Assistant, Department of Forestry, has continued the project to date. Kozicky has been carrying on year-round studies of flocks of wild turkeys and also following through on game farm releases in order to aid in determining any weak spots in the turkey program. This project could not have progressed as it has without the keen support and cooperation of turkey farm employees, game protectors, and land management agents in the areas where the study is being made.

Miss Helen V. Merritts, graduate student, Department of Zoology and Entomology, has been analyzing stomachs of pheasants and ruffed grouse since 1941. One report on her work has been in the GAME NEWS. At present she is carrying on a distribution study of the several species of cottontails found in Pennsylvania.

Egbert G. Musser, technical assistant, Department of Zoology and Entomology, joined the Unit in December 1941. His work is on a study of the various forest types in respect to wildlife environment. His objective is to determine the effects of plant succession, cutting, burning, and agriculture on existing game ranges.

From 1938-41 Drs. Logan J. Bennett and P. F. English did considerable work on a study of various census techniques applicable to the white-tailed deer. One method in particular was worked out for censusing deer on experimental areas by the use of pellet group

(Continued on Page 26)

A Woodcock singing ground.

# If You Were Lost in the Forest Without Any Supply of Food -- *Would You Starve?*

By CLAIRE NORTON

*Illustrations by The Author*

*Reprinted Courtesy Nature Magazine June-July, 1942*

★

YELLOW POND LILY OR SPATTERDOCK
Its dried seeds furnish a tasty mush eaten like a hot cereal or sliced and fried in butter or bacon fat.

THE wind howled down the notch of the twin peaks on our right. It shook our cold bodies, wet from the drizzle of the early afternoon. With each step our boots "skwooshed" sadly. The thick, heavy smell of rain-drenched pine needles surged up to enfold us. A timid twitter of a bird, the slight pattering of a golden aspen leaf slipping down the branches, the steady drip, drip from hat brim to shoulders were sounds caught between the throaty growls of the wind.

A shiver passed through both of us and each turned suddenly to the other. Fear started at once in two pairs of eyes. The full impact of being lost—lost and cold and hungry—hit us and gripped us. For a long moment naked panic rose out of the ashes of our adventure. Slowly the spark of fear was smothered by the blanket of sanity. Bare hands felt the roughened texture of raspberry leaves. Hats off, three fat red berries gleamed up from the black felt of mine, then three more. Soon the bottom could no longer be seen. With a voice muffled by berries, I asked, "What would you give now for a thick, juicy steak smothered in onions, or a luscious big bowl of combination salad — or even — even apple pie?"

"Why bring that up?" was the plaintive query, equally berry-muffled.

I pulled the top leaves from a nearby fireweed, just under the cottony spike that was tipped with the last magenta flowers of the season, nibbling these with an occasional wry face as we continued down toward the aspen stand and the lake beyond. Several scattered flower stalks, still bearing remnants of once grass-like leaves and topped with narrow, three-sided seed capsules, swayed back and forth in our path. We knelt and dug around these stalks with our pocket knives, turning out from a depth of two or three inches small, pear-shaped, husk-wrapped bulbs. Stripping off this outer covering, we sank our teeth into the sweet, crisp flesh of the mariposa lily.

A red glow had grown in the western sky as we rose from the damp grass. The evening breeze brushed chill against us as we hurried through the aspens to the shore of the lake. A tiny blaze was lighted and nursed into flame. The damp wood sputtered in protest, then boiled out its saturation of moisture. Flame crackled through the wood until we could feel the cheering warmth of a fire.

In spite of the berries and the mariposa bulbs, the empty knawing in our stomachs increased. Stripping off our damp clothing we waded into the icy lake. Breath came in gasps as we moved deeper. Suddenly we were warmer, almost cheerful as we passed among the green lily pads, dotted here and there with the golden sparkle of an occasional late season bloom. We pulled off the ripened, globular seed pods of those that had bloomed weeks before. Returning, burdened, to our fire, we left our harvest and returned to the lake edge where we dug from the mud with our bare hands several of the matted roots of cattails.

Dressing in clothing still far from dry, we washed the mud from the cattail roots. I peeled one and ate it raw while we raked out a nest in the coals, dropped in the remaining rhizomes, covered them with coals. We left them to roast, set a flat rock in the flaming wood on the other side of the fire, piled on more wood and returned to the lake to separate the seeds from the sticky pulp of our lily pods. Back at the fire once more we dragged the hot flat stone out of the fire, piled our seeds on it and sat down to await our evening meal and to dry our boots.

Darkness settled steathily over our immediate world, filling the spaces between the tree-clad mountains with its presence. One by one three stars appeared in the sky. Clouds left from the day sailed silently overhead. The faint silver gleam of the moon lighted up the south; peaks stood out in silhouette. The sentinel guards of tree trunks came on duty. All the night noises of the forest, the solemn "whoo" of the great owl, the gnawing of the porcupine, the snap of a twig broken by a night creature, the pit-pat and the scampering of the little animals, came to us as we scraped the burned skin from the roasted roots of cattail, crunched the parched seeds of the pond lily, and finished off with raspberries and mariposa lily bulbs for desert.

To get oneself lost and then starve to death in any natural habitat within the confines of these United States requires a certain amount of timidity, and, to put it bluntly, stupidity. Few people will ever face such a situation. Few ever put themselves in a position where they might be either lost or starving. More's the pity, since they are missing the opportunity to know Nature most intimately.

I can think of no spot—desert, mountain, woods or plains—and no season, excepting perhaps the dead of winter and in a howling snowstorm, where starving would become an unavoidable tragedy. The food might not be so palatable as that even of Jake's Drive-In or Aunt Hattie's Tea Shoppe, but it would serve to keep backbone and ribs apart.

As botanists we became interested, some years ago, in primitive uses of native plant material for food. So as riders of a hobby, not as starving wayfarers, our aim has been to know at first hand the possibilities of this material.

Most of our adventures with native foods have been in the Colorado Rockies. In many instances we have added to these primitive food plants the condiments of the every-day kitchen, or cooked them by modern methods with astounding new taste sensations.

(Continued on Page 24)

# MARMOTA-MONAX

## By CHARLES R. WILLIAMS

Adult Groundhog.

STARTING July first and extending through September the hunters of the Keystone State have wonderful opportunities to participate in a grand sport, woodchuck hunting. I have been hunting for the past twenty years and will try to pass along to the "tryos" a few tips, which I hope will help them to enjoy the summer months afield.

The woodchuck is known by many names; a few are, whistle pig, hog and chuck. The true name is Marmota-Monax. They are found fairly well distributed in the United States. They extend north to British Columbia where they are larger in size. The average weight of the chuck in Pennsylvania is about eight pounds, and measures eighteen inches from nose to tip of tail.

Woodchucks have remarkable eyesight, so choose your clothing with care.

A woodchuck has astonishing vitality. Many are hard hit while near the entrance of their dens, manage to escape, and die a lingering death. Hours of anxious waiting at the den of a chuck can be avoided if you will observe some of their habits.

Early morning and late afternoon are the best gunning hours of the day. Mid-afternoon sun is too hot, and chucks will retire to the cool of their dens. Occasionally they will sun themselves by lying at the entrance of the den with just their heads showing, presenting difficult shots. Cobwebs across the entrance of the den indicate the absence of game, as woodchucks are not in the habit of allowing these to form. If you have taken a chuck from a den today, tomorrow you can bet cobwebs will be there.

A lookout post will frequently be near the main entrance to a den where a chuck can observe you without being seen. The entrance is usually surrounded with grass and weeds. It also is an auxiliary means of escape if hard pressed or unable to use the main entrance.

Clothing must be a neutral color, such as khaki, which blends well with the surroundings. Do not wear white, but by all means wear a piece of red cloth, or a red handkerchief, on your coat or around your hat as a safety measure. Binoculars are a necescity for you will spot many chucks which would have escaped the naked eye; and please, do select a rifle with sufficient power to make clean kills. Some of the excellent chuck rifles are as folows: 257 Roberts, 220 Swift, Neider Magnum, Varminter, 22 Hornet, Zipper, 218 Bec.

Telescopes are a wonderful addition to a chuck rifle as they enable you to place your shots in a vital area. Open sights are all right for close shooting. If you cannot afford to equip your chuck rifle with a good telescope, micrometer sights are excellent. Sight your rifle in for one hundred yards. Hold over for longer shots, and lower for shorter shots. Study the ballistics of your cartridge.

The chuck is a very clean animal, eating clover, berries and grass. For that reason he makes an excellent meal if prepared properly. Under the front legs at the shoulders are two glands or sacs which must be removed or the meat will have a strong or "ground" odor. When you get your chuck remove the entrails immediately and place him in a cloth bag which keeps out blow flies that are prevalent at this time of the year. When home, remove hide, and cut meat in serving pieces. Let stand in salt water in a cold place over night. Next day wash in cool water. Place in kettle with more salt water, chopped onion and a teaspoon of vinegar and boil three minutes. Remove meat, dip in flour and brown in skillet in hot fat. Place meat in roast pan; make gravy from flour and drippings in skillet in which you browned the meat. Pour gravy over meat. Add onion, celery, bay leaf, salt and pepper, cover and bake until tender. Then fellow sportsmen you have a real meal.

So when you have a day to hunt chucks, ask the farmer's permission, be careful of richochets, wear red on your back and watch the bag limit. Take less than the amount. When the deer season calls around, and you have that big buck in your sights, mister, you won't miss. Your trigger squeeze is smoother and your eye is sharper. The woodchuck made it possible.

Young Groundhogs.

# Log of Rattlesnake Shack

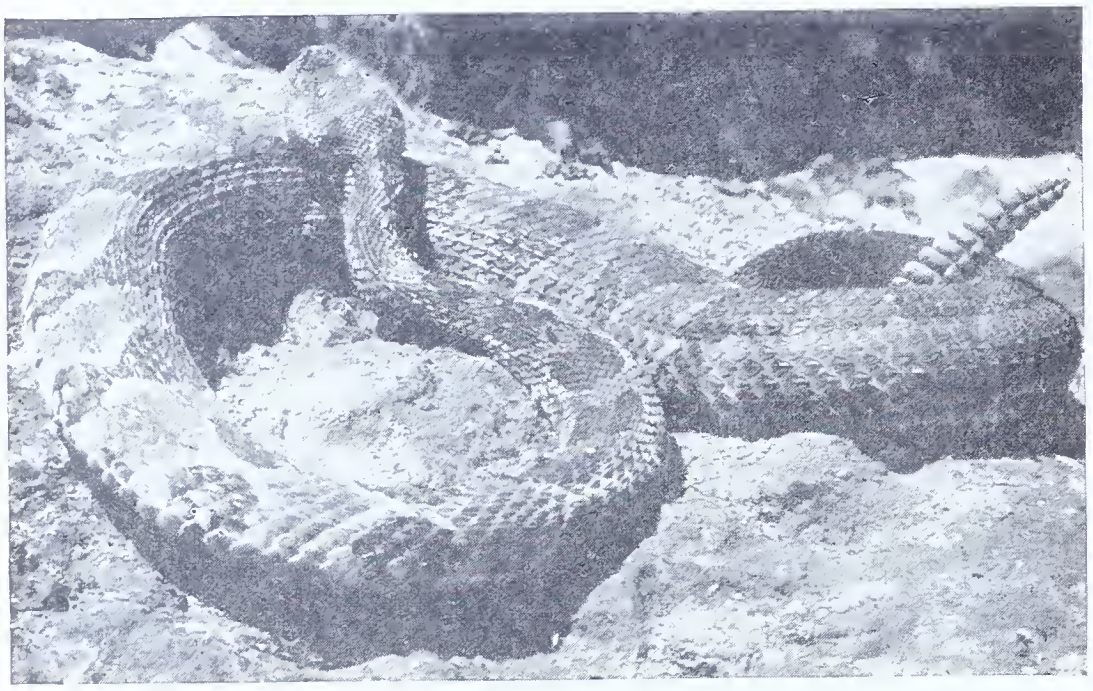


Photo LaMar Mumbar

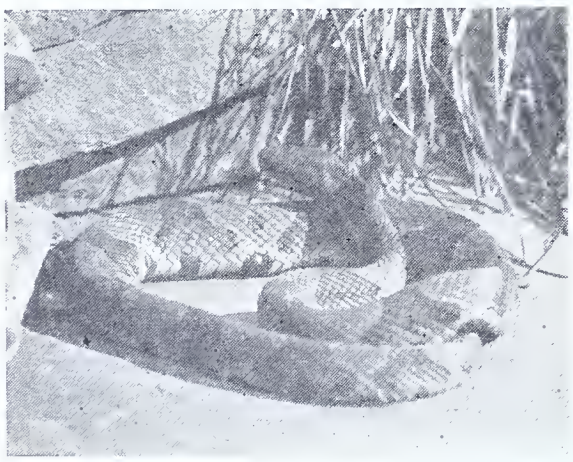
Rattlesnake.

RATTLESNAKE SHACK derived its name from this reptile. It was the first creature to be observed upon our first visit a dozen years ago. Like a sentinel guarding the premise of some departed goblin, the rattlesnake was coiled upon a discarded piece of furniture, that sprawled in grotesque fashion in front of the Shack. Having written a "log" of events since that day, we pass on our impressions of what we saw in the way of wildlife and other activities. We hope our out of door friends will find some interest and perhaps a bit of information in these notes.

### Month of August

It is always a thrill to see a deer in its native element, even if one does not have an ulterior design upon its life. During August the wild apples attract them to localities where these fruits grow. Our shack grounds harbor a number of such trees, doubtless originating from seeds distributed during earlier logging operations. It was our thrill to cautiously peep out the cabin door in the early mornings and watch them feeding upon the apples on the ground.

Sometimes a woodchuck would be sampling the fruit also. These little animals often satisfied their hunger by eating the plants around camp, but the climax was reached when one husky old groundhog stole a fine large cantaloupe from the spring box and had



Copperhead

it about finished when disturbed. He even held a guilty look when confronted and then fled into the bush.

Gray squirrels scrambled and thumped about the porch in the early morning, for we have a protected colony of "grays" throughout the year. Cuttings of acorns and butternuts were noticed during August.

August opens with the diminishing notes of the whip-poor-will. His song is short and the few calls he makes each evening at dusk, indicate to use week-end pioneers that ere long he will be journeying south. We have him recorded during the entire month of August.

The humming birds have raised their broods. They balance for a brief space in mid-air, then flit about taking nector from the jewell weed flowers that line the edge of our little stream. They also chase about among the cardinal flowers, a combination of bright colored beauty and movement that dazzles the eye. Humming birds may be observed throughout the month.

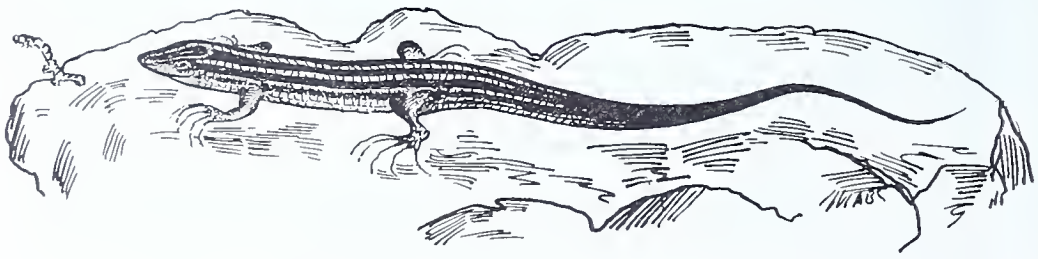
Among the birds our field glasses have caught during August are the Scarlet Tanager, Black and White Warbler and the Redstarts, all of whom nest with us. The yellow billed cuckoo talks from among the nearby foliage while in the night our screech owl whimpers at the moon.

This is the month to tread lightly over the forest trails for rattlesnakes and copperheads are abroad. Throughout the years, August has been a snake month. Around the camp, they were easily seen. We had made the shack clearing into a lawn and here we took many nice specimens alive for the zoo. The general measurements of our local timber rattlers were 39 to 42 inches in length. The largest one, caught on August 26th, contained a large rabbit which handicapped its activities and the rattler was easily subjugated. It was 44 inches in length and had 12 rattles.

Copperheads also were plentiful in August, both up on the mountain side and in the bottom lands. Both species of poisonous snakes mentioned are abroad at night. A copperhead was found one sultry night at 10:30 P. M.

But here is a beautiful little reptile that frequents our premises that many persons consider dangerous. It is the little Blue-tailed skink, also known as Five-lined skink, striped lizard, "Scorpion", and Blue-tailed lizard. This perfectly harmless little lizard may be handled with impunity if you can catch it. It is quick and alert. It delights to bask in the sun and lives on the tiny insects picked up in rambles over the shack, the great gum tree or the rock piles. It is during August that we notice many young skinks about

Woodchuck had a guilty look on his face.



Blue-tailed lizard or skink.

# By A. B. Champlain

*Line Drawings by*
*The Author*

**This is No. 2 of a series of nature stories by Dr. Champlain, State Entomologist, who every week end for ten years kept a log-book at his cabin in the mountains of Clark's Valley, Dauphin County.**

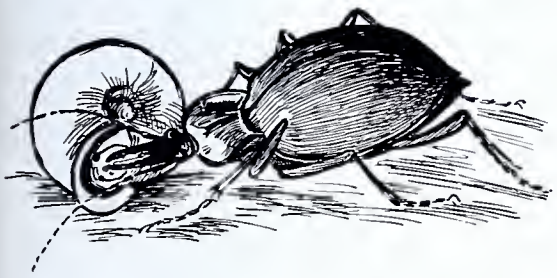
★

Photo Pa. Dept. Agriculture

Male Katydids—two at left showing sounding apparatus, female at right.

the place. They love to sun themselves on the side of the building and can walk up the vertical surface like "nobodies business". One little fellow which had lost part of its tail during some earlier event was busily growing a new appendage. It is too bad that many of the folks in the mountain regions call them "scorpions" consider them poisonous and try to kill them. A full grown specimen of *Eumeces fasciatus*, as this lizard is known scientifically might bite a bit but there is no danger of poison or after effect.

August is the month for evening serenades. Katydids begin their noisy chatter. What a din they can raise on a still evening along the dark edge of the forest! Mr. Katydid, who does all the talking, is constantly referring to Katy—"she did or didn't". It is the best he can do, but attempt to gather one in and he will let out a squawk that will startle



Cychrus viduus, the snail hunter, with his prey.

you. Living among the dense foliage during the daytime and matching the leaves in color and design, the katydid is difficult to locate. At dusk he leaves his hiding place and ventures forth to call his ladylove. For this purpose he is endowed with a stridulating apparatus that is superior to that of any of his relations. He can out-call and out-do any member of the grasshopper tribes. The musical apparatus (if music it be) of the true male katydid consists of drum-like membranes, thin and transparent, stretched over a half oval frame on each wing. When rubbed together the answer is "Katy did" or "she didn't". We are told that the sound can be heard for a quarter of a mile.

Among the novelties encountered during August was a near relative of the true katydid, *Amblycomorpha* sp. This grasshopper, instead of being foliage green in color as it should normally have been, was a beautiful pink from head to foot. The pink color is a rare hereditary characteristic that sometimes crops out among these insects.

Another insect worthy of mention is that rare ground beetle *Cychrus viduus*. It is our largest species in this group with a distinct violoceous sheen ornamenting the black body. Cychrus is especially prized by beetle hunters and reaches a size of about 1¼ inches in length and about ⅝ inches in width. Found sparingly through the State in the mountain regions only, it lives in dark, rocky crevices and beneath boulders or loose heavy bark of dead forest trees. In this habitat during the month of August it ventures forth at night to hunt its prey. This predaceous beetle feeds upon the snails that occur in these rocky or moist habitats. With its elongate jaws the Cychrus burows into the orifice of the snail's shell and extracts the meat.

Using 'coonhunter tactics, but without dogs, we sallied forth at night with our trusty flashlights. A number of these rare beetles were captured between 10 o'clock P. M. and 2 A. M., and no bag limit.

Among the pests of the wildwood we captured adult specimens of *Saperda candida* during August. This means to the entomologist that the round-headed apple-tree borer is ready to lay more eggs. Here in the mountain regions the wild apple trees and related species are harassed and ruined by the larvae or young of this miscreant, just as they are in commercial orchards. However, there is no one interested to apply control measures in this case.

Sugaring for moths is a method of hunting wildlife. It is applied by naturalists who hunt insects for their hobby, sport or recreation. Fermenting syrups are placed in containers or plastered on tree trunks to attract various insects. In this way many rare specimens are taken to be used for scientific study by specialists, to be placed in museum collections or to be used by individuals for ornamental or aesthetic purposes. Not only moths but many rare beetles and flies are thus captured for uses as stated.

It is now that the goldenrods give the open places and clearings the beautiful yellow glow that indicates approaching fall time. Here is a feast for pollen hunters and nectar gatherers. Our golden flowers are "crawling" with myriads of insects whose musical hum has a pleasing sound to lovers of the out-of-doors.

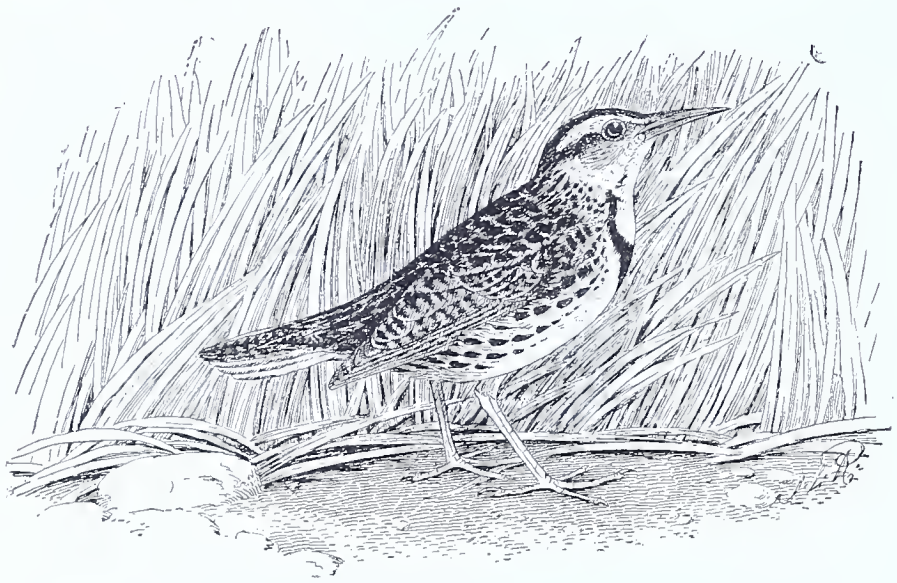
Yellow fringed orchids, one of the Habenaria, now bloom in the bottom land and along the old tramway, relic of past lumbering operations. In the woods another orchid, the Rattlesnake Plantin, grows and blooms at this time.

It is now that the huckleberry pickers may be encountered in the mills—if we venture away from the stereotyped paths, and now also the fox-grapes are ripening. And how about that dish of morning picked blackberries we had for breakfast, with plenty of cream and "sugar" to spare "them" days!

During the early part of this month, we watch the meteorites dashing hither and yon in the clear night sky, and any night the calls of the wild folk make echoes that are music to our ears.

Adult of apple tree borer.

# Migratory Bird Conservation Report



Meadowlark

EACH year, under a provision in the Migratory Bird Conservation Act, better known perhaps as the "Norbeck-Andresen Act," the Migratory Bird Conservation Commission is required to file with the Congress a report of its activities. This is done through a letter from the Secretary of the Interior, who is Chairman of the Commission.

### Appropriations Fall Short of Authorizations

This commission was created after a long fight in Congress covering several sessions. Under the terms of the Act $75,000 was authorized to be appropriated for the first year (1930), $200,000 for the second, $600,000 for the third, and thereafter $1,000,000 a year until 1940. From then on $200,000 was annually authorized for the work of the Commission. Only in the first two years were the appropriations made as authorized. In 1932 the appropriation was $400,000, which was $200,000 short of the authorization. In 1933 the appropriation amounted to $318,000.

The total authorized appropriations from 1930 to 1941 inclusive amounted to $8,275,000. Actually, however, there has been appropriated during this period the sum of $1,613,805.

### Duck Stamps to the Rescue

The Senate Wildlife Committee back in 1933 realized that appropriations were going to lag far behind authorizations under this Act. The Wildlife Committee, after hearings, proposed what is popularly known as the "Duck Stamp Act," which is technically referred to as the "Migratory Bird Hunting Stamp Act of 1934." Since that time revenues flowing from the sale of these hunting stamps to waterfowl hunters at $1.00 each have amounted to $5,325,708. Ninety per cent of the revenue so received is available for the purchase, maintenance and development of inviolate migratory bird sanctuaries and for the administration, maintenance and development of other refuges under the administration of the Fish and Wildlife Service. Another provision makes it possible to use a part of these funds for investigations of waterfowl on these refuges and other places throughout the continent.

Out of the total amount of $5,325,708, which has come from the sale of those Duck Stamps, only $828,093.46 has been allotted for the purchase of lands. The rest of the money has gone for administration and development of the refuges and for investigations.

### PWA Unexpended Balances Help Buy Refuges

During its life this Commission has had in addition to the appropriations of $1,613,805 and the $5,325,708, coming from the sale of Duck Stamps, another sum, which has reverted to it from the Pittman-Robertson funds which were allocated to States but never taken up or covered by the States. This sum amounts to $98,371.52. Therefore, in the twelve years of its operation, the Commission has had for expenditure $7,037,884.52. Unexpended balances in old PWA funds, and from other sources, increased the amount available to the purposes of this Commission by a little over $6,000,000, making a grand total for expenditure of $13,724,843.

What has the Commission done with this money? How has it expended it? What are the results? These are natural inquiries, as most of its money has been contributed out of the pocketbooks of the sportsmen of America.

First, the waterfowl refuge system has been developed out of these funds. The refuge system needs only a little more rounding out and a few more purchases before it is substantially completed, although upkeep will continue.

### Land Costs Are Low

Two million, thirty-four thousand, nine hundred and fifteen acres have been purchased up to date at an average cost of $6.74 per acre, which is a fine tribute to Rudolph Dieffenbach, Secretary of the Commission, and his able staff of workers for their astuteness and bargaining ability when buying land from private owners.

Eleven million, two hundred fifty-four thousand, seven hundred and seventy-nine acres have been acquired by the Commission under Executive orders by the President. One hundred seventy-eight thousand, five hundred and ninety-seven acres have been acquired by gift, easement and channels other than purchase of by Executive order.

The waterfowl refuge system on June 30, 1941, was comprised of 13,740,304 acres of land and water, and is made up of 267 refuges from the Atlantic to the Pacific and from the Canadian border to the Gulf as well as in Alaska.

The Migratory Bird Conservation Commission is composed of the Secretaries of the Interior, Agriculture and Commerce, Senators Charles L. McNary and George L. Radcliffe, and Representatives John J. Cochran and James Wolfenden. Senator Radcliffe was appointed in the place made vacant by the death of Senator Key Pittman.

Purple Grackle.

# SAFETY FIRST

« « By Capt. Chas. Askins, Jr.

A gay cheerful crowd, the hunters quit their auto and approached the lonely water hole. Arranging themselves about the pond, they made ready for the coming flight of doves. Very soon, birds commenced to spiral in. The gunners sought them out and with hungry muzzles belching, dropped birds on every side. Retrieving some and leaving others to lie until the flight was done, the shooters made war on the swift targets.

A darting paloma swooped within the enemy lines, passing two shooters, he flirted a streamlined belching, and unscathed by two quick blasts, flew directly in front of the boy of the crowd. Swinging to intercept the whistling target, a fourth marksman whipped his gun after the game—and fired just as the bird passed the youngster's face. Today, that hapless boy is wearing bandages over his precious eyes. Weeks must pass before the final verdict is known. Dreary weeks of sleepless nights and dismal days, waiting to know whether he is to be spared a little sight or condemned to a life in blackness.

Gun accidents so often happen that way. A single moment of carelessness and the great damage is done. This tragic mishap, like countless others, could have been avoided. Seldom are gun accidents wholly accidental. Too often they may be traced directly to the failure of the gunner to observe the sane rules of good weapon-handling.

We look on a shooting iron as pretty much a toy these days. A plaything to be used in a sporting way. While it is all that, it is a highly dangerous instrument at the same time. And, unlike the diamondback who always warns before he strikes, the gun does injury without warning. Familiarity, they say, breeds contempt, but that isn't true of the man who handles guns all the time. An intimate association with shooting irons invariably instills a healthy respect and an increasingly careful use of them.

The more a gun is handled, the more cautious the gunner becomes, for he realizes just how dangerous the thing is that he carries. Accidents rarely happen to old hunters, to woodsmen, and practiced riflemen. Gun hurts come to those tyro sportsmen who go afield a half dozen times during the year; to those fellows who are not familiar with firearms and haven't learned to treat a gun as both friend and foe—friend when treated as such and an implacable enemy when misused, even for an instant.

Posters by Sporting Arms & Ammunition Manufacturers' Institute.

Reprinted from Typo Graphic, October, 1941

When a fellow commences to scratch his head and figure where he may be a bit more careful with his shooting irons, he should start right at home. If you have kids, your fusils should be locked in a closed cabinet or well fastened closet all the time. It is to be recommended that whether locked away or simply stood in a corner they be unloaded all the time. If prowlers or predators make it necessary to keep a loaded gun handy, hang it above the door. It will be out of childish reach there. Make it a policy to keep all your powder burners loaded all the time, or else all of them unloaded. By following either practice you realize the instant a gun is picked up whether it is dangerous or not. The careless habit of keeping some guns full of shells and others empty will sooner or later betray you.

When you go hunting in the fall of the year don't trust any gun safety to keep the weapon harmless. Safeties aren't infallible and the only sane procedure is to leave the gun chamber empty until you have crossed the fence and are actually in the hunting territory. In moving through the fields, working through timber, or scrambling through brambles be extra cautious that your muzzle is either pointed toward the sky or at the ground. If you are bird-questing with an old crony be doubly careful that never at any time do you have him covered with your muzzles. He should be equally cautious.

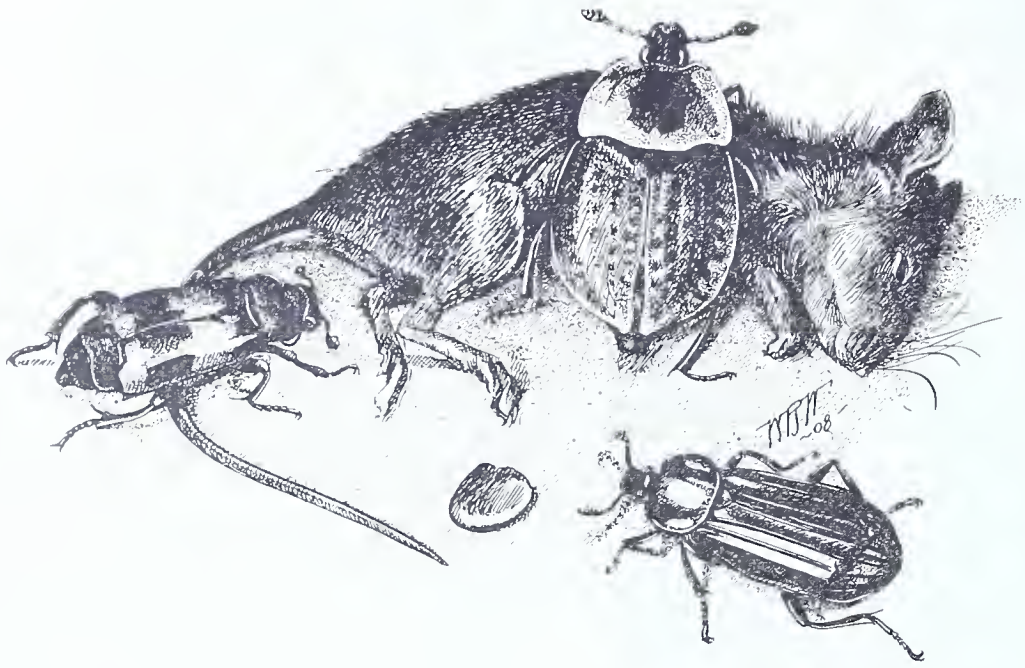
A most sensible undertaking and a possibility as yet unexploited would be to hold large classes among the sportsmen clubs of the country in Red Cross first aid training. I more greatly than the shooting men if it cannot think of a group that would benefit could be possible to thoroughly ground them in practical first aid.

A number of ways are recommended for crossing fences. Best and sanest policy when a fence must be crossed is to unload the gun. It requires about two seconds to recharge the gun and the game you'll lose by being caught with an empty iron will be small indeed. Don't make a habit of poking the barrel into briar patches, brush piles or other likely hiding places of game. Sooner or later you'll lodge a bit of snow, a twig, or some mud in the muzzles and at the very next shot, the gun will come apart.

Countless sportsmen own fine old double shotguns, handed down quite often from daddy to son. If you have one of these old family heirlooms, put this story aside right now and go examine your old smooth-bore. If you can find anywhere on the barrels "damascus steel," "laminated steel," or "twist steel" do not fire the gun again! Shotguns made up until about twenty-five years ago were almost invariably constructed of damascus, laminated or twist steels. These barrels are obsolete today. They will blow into a dozen pieces sooner or later with our modern, progressive-burning high-intensity powders. There isn't a load on the market today which the manufacturers will recommend for these old shotguns. You may have been using the latest loads in your old gun and it may not have indicated any undue strain, however the very next shot you fire is apt to see it come all unglued. In the interests of your own personal safety, "Old Bacon-Gitter" should be stowed on the shelf, and having bestowed an affectionate pat for its faithful performance over the years, left there for the grandchildren.

The wisest old sportsman in the world cannot write a set of rules for good gun handling. No one can forsee all situations with regards shooting irons and devise a rule to cover each happening. And in fact sane gun handling comes, not from learning a set of pithy rules,

(Continued on Page 32)



Drawing by W. R. Walton

Scavenger Insects.

# Good Insects

*Photos Courtesy of Pennsylvania Dept. of Agriculture*

MOST persons believe that the only good insects are dead ones. However, this is far from the truth. We really nave a great many of good insects who are concerned chiefly with killing and eating other pestiferous species. These beneficial creatures are the parasites and predators who help maintain a natural balance over all insect life. Were it not for these good insects, the destruction of our crops and all of our possessions would be more continuous and complete, and certain injurious kinds of insects would become so plentiful that they would soon overrun the earth.

Of course to be strictly truthful, we might say that these friendly parasites and predators are not in the least interested in man or his economics, nor do they have a grudge against others of their kind. They merely have a liking for certain other insects as a fox has for a flock of chickens. At any rate, we should be satisfied that these beneficial insects are on our side. We should realize that the Ichneumon wasp that attacks the borer in our tree or plant is doing us a service, as well as providing food for her progeny, and that the parasite wasps and flies that search out destructive beetle grubs among the grass roots, or sting the caterpillars who eat the tree foliage, all contribute to the efficiency of our economic system. Nor should we forget the predaceous ladybeetles all dressed up in reds and yellows, and spotted with black mathematical designs. They prowl over plant and leaf and stem, searching for plant lice or aphids, and other soft bodied creatures to eat.

Chinese Praying Mantis, popular predator.

Again we might mention predators such as the ground beetles whose voracious activities have made them an asset in the natural control of insect pests. Most of these are of dusky hues but occasionally the opposite is true. Consider the large beautifully colored *Calosoma sycophanta* as an example. This predaceaus tree climbing beetle was imported from Europe into the United States in order to help reduce the Gipsy and Brown-tail Moth infestations.

Checkered beetles of the family Cleridae do considerable good in attacking destructive bark-beetles in our forests. You are no doubt aware that bark-beetles take a toll of our woodlands by injuring or killing forest trees of various kinds. There are many more examples of this type of beneficial parasites and predators, all destroying other insect, many of which are pests as far as we humans are concerned.

And now we come to the most valuable and beneficial of all the good insects. They are the myriads of little insects that pollenize flowers. There are few plants or trees that do not depend upon certain insects to carry pollen on their legs or backs, from the stamens of one plant to the stigma of another —thus insuring cross fertilization and the production of fruits and seeds. Nature may put the quality in the fruits, but the ever busy little bees, flies, and bugs concerned, make this possible.

Among the insects useful to man, the honey bee stands out as a benefactor in many ways.

(Continued on Page 20)

Carabidae, imported from Europe to combat the Gypsy Moth.

Cocoon of parasites on destructive caterpillar.

# A Parable

## By MARK SULLIVAN

Photo by Leo A. Luttringer, Jr.

The pheasant is wild and free.

REFLECTING upon deprivation, I glanced, with some annoyance, at the closed garage door, and started for the village afoot. I took a beeline course, by what had been, when I was a boy, a path across fields, trodden bare through use a dozen times a day, by ourselves and neighbor families—the boys, in summer, barefoot. But today the path is indistinguishable, long disused and grass-grown, since going to the village became a matter of jumping into the automobile, with no more use of feet than pressing the gas pedal.

Crossing a field, its fresh May green suffused with the yellow of buttercups, I turned from the path a few yards to look for a pheasant's nest—I had been told of it by some of the folks on the farm, whose eyes are sharp for the ways of our wildlife. Pausing some fifteen feet from the spot they had directed me to, I peered for some minutes before I was able to glimpse the pheasant's bright eyes and alertly poised head, a few inches above the ground. Backing away a little, I watched her, and forgot our human anxieties—in reflecting upon the constant wariness against danger, the unending exercise of intelligence and resourcefulness, which that pheasant hen must practice in behalf of herself and the brood she was hatching into the world. Making her nest, in every detail of location and surroundings, she had had in mind danger, and protection against it.

### Pheasant Scorns Isolation

A human, having the purpose this pheasant had, but less endowed with instinct and experience, might have sought safety in isolation, seclusion, and could have found it in a deep wood near by. But the pheasant, balancing safeties of seclusion against its perils, seeking a mean between seclusion and the open, had made her nest on the edge of a grass field, where the field abuts upon a country road. Within a dozen fect of the nest, automobiles pass every hour or so. But the pheasant knows the autos pass, they do not stop. While she knows man as a peril, a deadly one when the hunting season opens in November, she has observed also that man in an automobile does not shoot a gun. Moreover, in the delicate balancing of considerations which determined that spot, she matched the human danger against other ones. She knew that if nearness to man upon a frequented road is a danger, it is also a protection against other enemies whose menace is to her eggs and young. Daytime marauders, the crow and hawk, guiltily conscious of their crimes against the farmer's crops and chicken yard, are too wary of man to light upon a roadside fence. Night prowlers—'possums, raccoons and skunks—are usually denizens of woods, more likely to do their hunting there than along the roadside.

She made her nest on the edge of a grass field.

As with location, so with surroundings. A casual passer-by would not notice that there were any particular surroundings, hence would not pause to look. But the pheasant had picked a spot a few inches from a fence post, which throughout the winter had stopped just enough of drifting leaves and tumbling weeds to provide the pheasant with precisely the quantity, and especially the coloration, she needed to merge herself into her background. And she had placed the nest directly beneath the lowest wire of the fence, where her eggs would be safe from the crunching footsteps of cows on either side.

There, for twenty-one days, she will set upon her eighteen olive-brown eggs, absent only occasional half hours for food and drink —but never absent from anxiety. Nor will hatching diminish her constant need for watchfulness. Throughout most of the summer she will tend her flock about the countryside, hiding them and teaching them to hide, summoning them to shelter beneath her wings when rain descends, instructing them in the lore they must know to live—against what enemies crouching and hiding is the best escape; from what other enemies, quick flight into the air.

The menace of war, against which man, once or twice in a lifetime, exerts himself, cumbersomely and complainingly, is to the pheasant the accepted law of nature. Every hour and minute, daytime and nighttime, danger is their way of life, unending vigilance their only safety.

### Chooses Wild, Free Life

There is compensation. The pheasant is wild and free, and lives the life that nature meant. By that, she is better off than some cousins of hers who live sheltered lives on this same farm. Our domestic chickens have safety, security—but are denied experiences their natures crave. For twenty years no hen on this farm has set upon a nest, nor tended a chick. Practically all the hatching and mothering in America's chicken yards is now done by mechanical gadgets, incubators and brooders. The hens lay eggs, and, periodically, have the urge to set and brood. But the chicken raiser, denying nature, rudely throws the hen back among the flock. There, for a day or two, she clucks forlornly, then resumes the laying of eggs, which is what man wants of her. To accept displacement of natural functions by gadgets is at once the price she pays for the protection man gives her—and the cause of her inferiority in resourcefulness and stamina to survive, to her cousin, the wild pheasant.

Possibly there may be a lesson here for us humans in America. Possibly we have too much substituted gadgets for exercise which nature meant us to have—automobiles, oil heaters, washing machines. Anyhow, we are going to lose a lot of the gadgets, and go some distance back toward nature. Possibly some wholesome compensation may result. —Harrisburg Telegraph.

# DON'T MENTION MY NAME

There is probably no group of words in the English language that can irritate a conservation officer more quickly or more thoroughly than the expression, "Don't mention my name."

Every officer on the force of the Game and Fish Commission has heard the same thing, time and again, from persons in every walk of life. In time, of course, he gets used to it.

He knows that whenever some gross violation of wildlife laws is reported to him, when someone mentions a chronic lawbreaker's activities, in short, whenever something is reported that obviously calls for immediate and forthright action, the story will probably end up with "—but don't mention my name."

And the conservation officer is at once stymied.

To be charitable, of course, it is possible that many of the alleged infractions of the law are tall stories, after all; stories that have grown out of all proportion to their original value under the sly coaching of Dame Rumor, and the reteller, somewhat dubious in his inner soul as to their accuracy, avoids any check on his veracity by his plea "don't mention my name." That really makes it worse. Hearsay is no basis on which any action can be taken.

"Yep! Seventy-five trout he had. I counted 'em. Why don't you conservation officers do something to stop it? It's a crime, when you see a man breaking the laws like that, and I'm always careful to obey the limits and everything. He had 75 beauties in his boat, I saw them myself. Why if I'd been a warden . . ."

And the conservation officer mildly suggests that since the expostulating angler saw the violation and the evidence thereof, that he could easily swear out a warrant, and appear against the culprit who was hogging the fishing in those particular waters, or could get in touch with a conservation officer, a constable, a sheriff or a deputy sheriff to make the arrest.

When that suggestion is made, just notice the change in tune.

"Oh, don't mention my name! I don't want to get mixed up in it."

Reports like the above to a conservation officer amount, frankly, to very little. Unless the officer witnesses the violation, he has to depend on someone else as a witness; but, alas, he finds that willing witnesses, whose sportsmanship is sufficiently militant and deepseated to follow through with a complaint, are few and far between.

Then there are the letters and complaints which come direct to the office of the Executive Secretary.

Sometimes they are not even signed, but if they are, almost invariably the qualifying phrase is inserted, which renders the complaint of little more value than an anonymous letter, and, as such, is perforce disregarded.

These comments are not intended to dissuade any person from reporting illegal seining, night hunting, or such other activities where the violators could only be apprehended by action of conservation officers. "Tips" as to violations are always needed, and the confidence of the person reporting the violation will be respected.

But the Commission hopes that reports will not be made without reasonable certainty that a violation is taking place—that the report of the violation isn't just rumor or backfence gossip. That's the reason the "Don't mention my name" boys are annoying. Their names won't be mentioned, but that phrase often means: "I don't know what I'm talking about."

In many of the other States in the Union, where fish and game problems have been acute for many years, the great body of sportsmen has gradually come to the realization that wildlife is theirs, and that the violator is misusing the sportsman's own property. Yes, his own property, for the fish and game belong to the State, which, in turn, is made up of its individual citizens.

And in these States, wildlife law-enforcement officers and agencies have gradually, from year to year, been given more and more wholehearted cooperation.

Perhaps the day is not far distant when sportsmen will have the courage of their convictions, and when the habitual violator, instead of being shielded by the "don't mention my name" excuse, will be recognized for what he is, and will be properly shunned and exposed by decent sportsmen.—Florida Game & Fish.

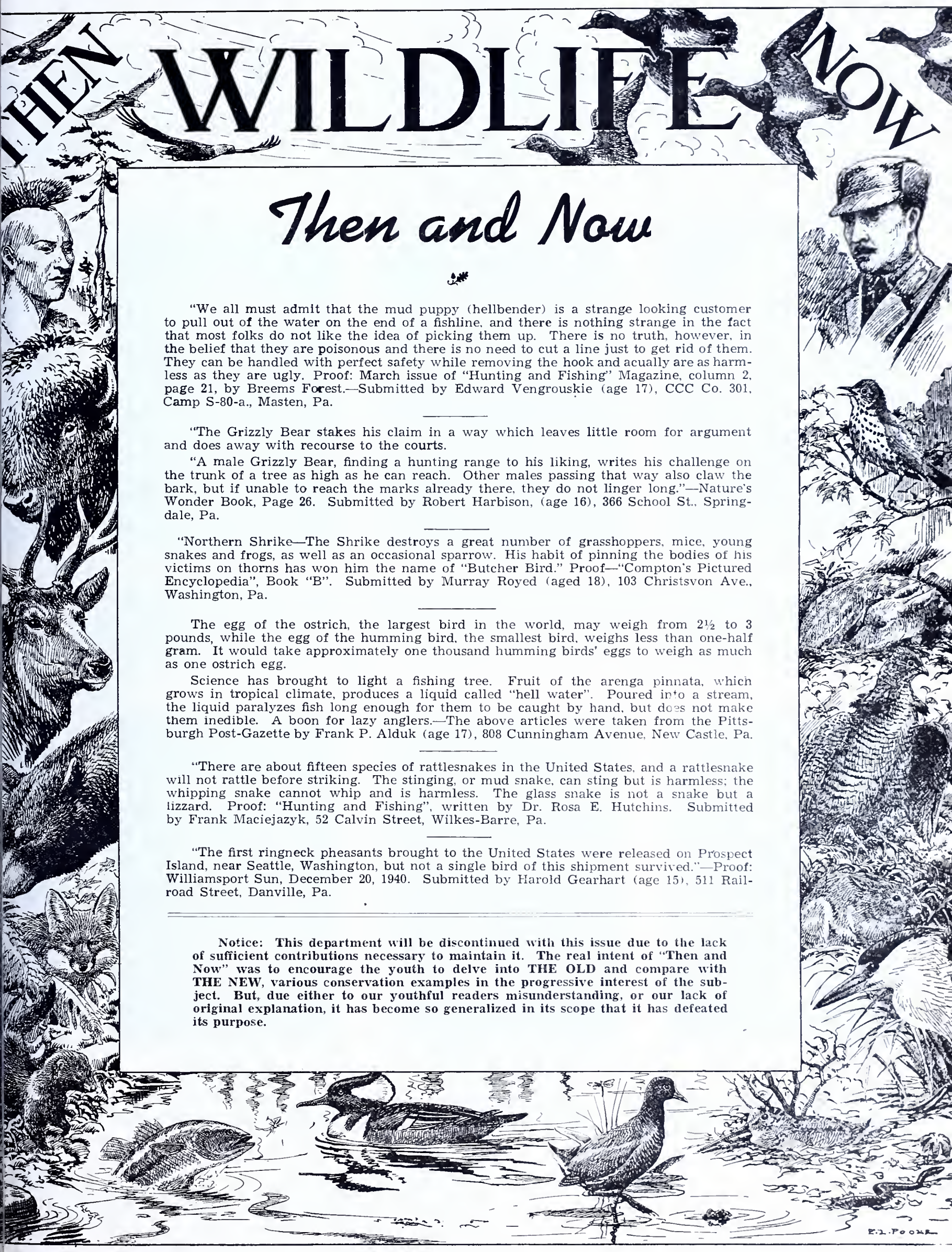

## Special Notice

There are many acres of public land open to hunting, but regardless of this fact, a great many hunters make use of privately owned land and are requested to observe a few simple rules of good sportsmanship, as follows:

1. ASK PERMISSION TO HUNT.
2. RESPECT ALL PRIVILEGES GRANTED.
3. BE CAREFUL WITH FIRE.
4. DO NOT DESTROY PROPERTY.
5. BE SURE OF YOUR MARK BEFORE YOU PULL THE TRIGGER.
6. REPORT ALL VIOLATIONS.

**HUNTINGDON COUNTY GAME, FISH & FORESTRY ASSOCIATION, INC.**

**Huntingdon, Pa.**




# *Then and Now*

"We all must admit that the mud puppy (hellbender) is a strange looking customer to pull out of the water on the end of a fishline, and there is nothing strange in the fact that most folks do not like the idea of picking them up. There is no truth, however, in the belief that they are poisonous and there is no need to cut a line just to get rid of them. They can be handled with perfect safety while removing the hook and acually are as harmless as they are ugly. Proof: March issue of "Hunting and Fishing" Magazine, column 2, page 21, by Breems Forest.—Submitted by Edward Vengrouskie (age 17), CCC Co. 301, Camp S-80-a., Masten, Pa.

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"The Grizzly Bear stakes his claim in a way which leaves little room for argument and does away with recourse to the courts.

"A male Grizzly Bear, finding a hunting range to his liking, writes his challenge on the trunk of a tree as high as he can reach. Other males passing that way also claw the bark, but if unable to reach the marks already there, they do not linger long."—Nature's Wonder Book, Page 26. Submitted by Robert Harbison, (age 16), 366 School St., Springdale, Pa.

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"Northern Shrike—The Shrike destroys a great number of grasshoppers, mice, young snakes and frogs, as well as an occasional sparrow. His habit of pinning the bodies of his victims on thorns has won him the name of "Butcher Bird." Proof—"Compton's Pictured Encyclopedia", Book "B". Submitted by Murray Royed (aged 18), 103 Christsvon Ave., Washington, Pa.

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The egg of the ostrich, the largest bird in the world, may weigh from 2½ to 3 pounds, while the egg of the humming bird, the smallest bird, weighs less than one-half gram. It would take approximately one thousand humming birds' eggs to weigh as much as one ostrich egg.

Science has brought to light a fishing tree. Fruit of the arenga pinnata, which grows in tropical climate, produces a liquid called "hell water". Poured into a stream, the liquid paralyzes fish long enough for them to be caught by hand, but does not make them inedible. A boon for lazy anglers.—The above articles were taken from the Pittsburgh Post-Gazette by Frank P. Alduk (age 17), 808 Cunningham Avenue, New Castle, Pa.

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"There are about fifteen species of rattlesnakes in the United States, and a rattlesnake will not rattle before striking. The stinging, or mud snake, can sting but is harmless; the whipping snake cannot whip and is harmless. The glass snake is not a snake but a lizzard. Proof: "Hunting and Fishing", written by Dr. Rosa E. Hutchins. Submitted by Frank Maciejazyk, 52 Calvin Street, Wilkes-Barre, Pa.

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"The first ringneck pheasants brought to the United States were released on Prospect Island, near Seattle, Washington, but not a single bird of this shipment survived."—Proof: Williamsport Sun, December 20, 1940. Submitted by Harold Gearhart (age 15), 511 Railroad Street, Danville, Pa.

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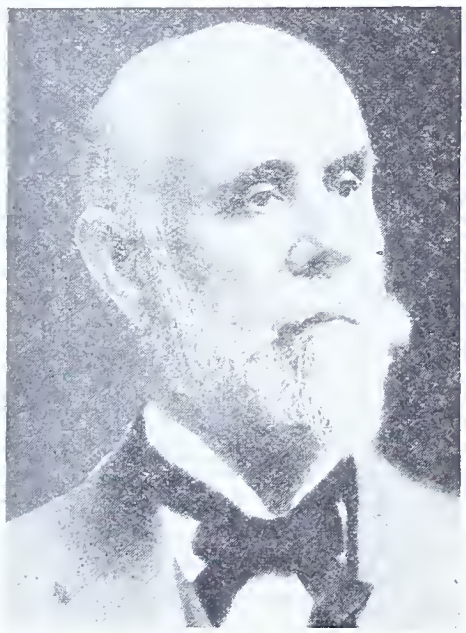
**Notice: This department will be discontinued with this issue due to the lack of sufficient contributions necessary to maintain it. The real intent of "Then and Now" was to encourage the youth to delve into THE OLD and compare with THE NEW, various conservation examples in the progressive interest of the subject. But, due either to our youthful readers misunderstanding, or our lack of original explanation, it has become so generalized in its scope that it has defeated its purpose.**

# ADMINISTRATIVE HEAD
# PENNSYLVANIA GAME



**DR. JOSEPH KALBFUS**

Carbon County

Secretary and Chief Game Protector
July 8, 1898 to Aug. 10, 1919

(Our records show that Doctor Kalbfus was acting as Recording Secretary as of Sept. 25, 1897, but was not regularly appointed as Secretary until July 8, 1898.)

**SETH GORDON**

Dauphin County

Clerk, Aug. 1, 1913 to Oct. 31, 1915; Assistant Secretary, Nov. 1, 1915 to Aug. 9, 1919; Acting Secretary, Aug. 10, 1919 to Dec. 31, 1919; Secretary & Exec. Secy., Jan. 1, 1920 to July 15, 1926; Executive Director, Jan. 1, 1936-

**J. B. TRUMAN**

Lycoming County

Traveling Game Protector, July 10, 1922 to Dec. 31, 1922; Chief, Division of Protection, Jan. 1, 1923 to July 15, 1926; Executive Secretary, July 16, 1926 to Nov. 23, 1928.

**ROSS L. LEFFLER**

Allegheny County

As President, he also was Acting Executive Secretary from July 1, 1931 to August 14, 1931, without compensation. (See page 17, June, 1942, Game News for full service as Commissioner.)

**DR. B. H. WARREN**

Chester County

Secretary Pro Tem
November 1896 to September 1897
(Was then State Ornithologist)

**W. C. BOWMAN**

Cumberland County

Assistant Secretary
January 6, 1921 to June 30, 1923
(7 years prior service as Game Protector)

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Assis
June 1
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Top Row: Administrative heads. Bottom Row: Deputies, except in the case of M
The administrative head of the Commission is the Chie

# AND DEPUTIES OF THE
# MMISSION SINCE 1896

**JOHN J. SLAUTTERBACK**

Mifflin County

Game Protector, June 1, 1915 to Sept. 30, 1919; Actg. Field Supt. & Travlg. Game Protector, Oct. 1, 1919 to April 30, 1924; Chief, Bureau of Vermin Control, May 1, 1924 to Dec. 31, 1928; Acting Secretary, Nov. 24, 1928 to Jan. 15, 1929; Executive Secretary, Jan. 16, 1929 to June 30, 1931.

**CHARLES G. STONE**

Mercer County

Executive Secretary
August 15, 1931 to January 28, 1932.

**ERNEST E. HARWOOD**

Luzerne County

Executive Secretary
January 29, 1932 to October 31, 1935
(Previously a Commissioner from Jan. 6, 1932; reappointed to Commission June 5, 1942.)

**LER**

etary
8, 1932
ious duties)

**W. C. SHAFFER**

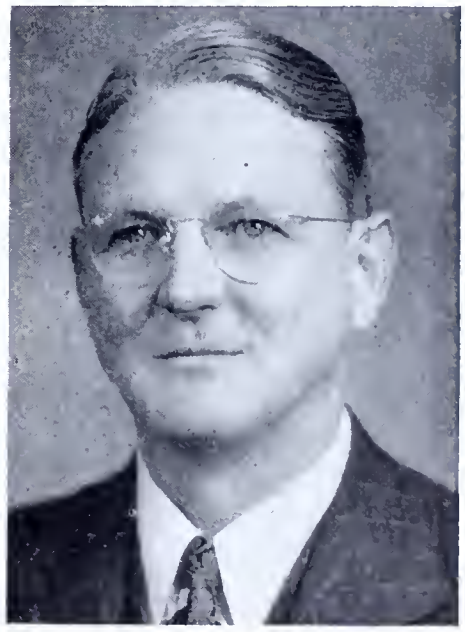
Allegheny County

Deputy Executive Secertary, Feb. 1, 1932 to Oct. 31, 1935; Acting Executive Secretary, Nov. 1, 1935 to Dec. 31, 1935. (1 year prior service in various duties.)

**JUDD C. TURNER**

Lawrence County

Assistant to Executive Director, Jan. 1, 1936 to Dec. 31, 1938; Assistant Executive Director, Jan. 1, 1939 to May 4, 1940.



**R. A. McCACHRAN**

Columbia County

Acting Asst. Executive Director Jan. 4, 1941-(6 years prior service Engineer in Lands Division; also 4 years Asst. Chief of that Division.)

will be noted, served temporarily as administrative head while he was President.
c, and serves as Recording Secretary to the Commission.

## REAPPOINTED

### HON. O. BEN GIPPLE

Governor Arthur H. James announced the reappointment of former Commissioner O. Ben Gipple, of Harrisburg, well-known sportsman and newspaperman on July 7, 1942.

Commissioner Gipple's interests in the conservation field have been many and diversified, and the Commission and the sportsmen will benefit greatly from his wide experience. He was previously a member from December 6, 1940 to July 15, 1941, and succeeds himself.

He is a member of Harrisburg Post No. 27 American Legion, and served as president of the Southern group of the Pennsylvania Federation of Sportsmen's Clubs. At one time he was a member of the board of directors of the Harrisburg Hunters' and Anglers' Association, a group he helped organize a number of years ago.

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"A grouse was killed on the Locust Ridge Road on June 7. Eight chicks were with her and stayed beside the dead body until Isaac Berger gathered them into a box and took them to his home nearby. The chicks all died within forty-eight hours."—Land Management Protector Paul L. Failor, Monroe County.

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A cannon big enough to stop a tank has no more kick than a 3,000-pound tractor when it pulls a plowshare against a buried rock

## IN MEMORIAM

It is with the deepest sorrow that we announce the tragic and untimely passing of another of our beloved associates, John B. Ross of Williamsport, Field Division Supervisor, who drowned in swirling flood waters about 9:00 o'clock Saturday night, July 18, near Roulette, Potter County, while on an errand of mercy along the headwaters of the Allegheny River.

Mr. Ross, a public servant who was always quick to aid those in distress, responded to a sudden call for assistance from residents of that area who were surrounded by flood waters, occasioned by torrential rains. He and Fish Warden Carl Bidelspacker were in a motor-propelled boat with two other rescue workers when it suddenly capsized. It is believed that Mr. Ross must have been struck on the head and rendered unconscious, for he was not seen afterwards by the other occupants of the boat who escaped by clinging to a tree and were rescued five hours later. His body was not recovered until Monday afternoon.

John was one of the Commission's most faithful long-time servants, and his sterling character, loyalty, integrity and willingness to respond to every call of duty will ever be an inspiration to all of us.

He served as a Special Deputy on a per diem basis from July 21, 1916 until April 1, 1917, when he was promoted to Refuge Keeper on Refuge No. 1 in Clinton County. On August 1, 1918 he joined the Army and served with the A.E.F. in World War I, in which encounter he was wounded. On May 15, 1919 he again returned to service as a Refuge Keeper but was elevated to the rank of Game Protector for the same district on November 1 of that year, which position he held until June 1, 1925 when he was promoted to the rank of Division Supervisor. He served in a supervisory capacity until January 1, 1933 when, because of his vast field experience, he was assigned to the Harrisburg office as Chief of the Bureau of Protection. Preferring by far the outdoors and the arduous tasks of field work, he was later re-

JOHN B. ROSS

## RESIGNED

### HON. SAMUEL C. CASTNER

The Commission announces with regret the resignation of Samuel C. Castner, member from Williamsport, Lycoming County. Mr. Castner, an ardent conservationist even long before his association with the Commission, which began on February 26, 1935, was a tireless worker, who served on numerous important committees, and was chairman of others. He was elected Vice-President on January 8, 1941, a position which he held for one year.

Keenly interested in all phases of the Commission's program, his retirement from active life in the conservation field will be keenly felt, not only by his associates, but by the sportsmen. Like all others who have stepped out of harness, however, his interest will nonetheless continue to be wholehearted and enthusiastic.

# CURRENT TOPICS

assigned to field duty on January 1, 1936, in his old capacity as Supervisor, which job he held until his death.

Mr. Ross is survived by the widow, two sons and three daughters. The funeral services were held in the Trinity Episcopal Church, Williamsport, and immediately thereafter the body was removed to Lock Haven for interment.

The Division Supervisors were pallbearers, with officers from Division "C" and "E" acting as guard of honor.

## NOTES FROM THE "BOYS"

May 12.—"I was told by one of our Corporals that I'd get a chance at the Officers Training School before my 13 weeks are in here. Some of our group were already selected for that, and the Corporal told me they only take a certain number at a time. He paid me a fine compliment that surely made me feel swell, and for which I thanked him also. One evening recently as he was talking with me to see whether I had applied for the Officers Training, which he wanted me to do, he informed me that 'I had the makings of the best soldier he ever saw.' I surely feel good over that, recalling that a great deal of credit for that goes to you because I got a wealth of information up there at School. I find all or most of that has been valuable, extremely so, here."—Pvt. Martin L. Shaffer, Company A, 1st Platoon, Camp Wheeler, Georgia.

"Bob" McDowell, of the Division of Propagation and Research, until recently stationed in Canada, dropped in on July 10 enroute to "who knows where." Sergeant McDowell looked hale and hearty, and his dry wit was as effervescence as ever—just bubbling over. Good luek "Bob."

Bernard F. Shields, son of Edward L. Shields, Game Protector, St. Marys, enlisted in the Navy June 22, and is now stationed at Newport, Rhode Island.

### TAXIDERMY EXAMINATION

The next Taxidermy Examination will be held at the offices of the Pennsylvania Game Commission, Harrisburg, September 15, by the Taxidermy Board, the personnel of which is: Reinhold L. Fricke, Preparator, Carnegie Museum, Pittsburgh; Harold T. Green, Curator, Academy of Natural Sciences, Philadelphia; and M. J. Kelly, Curator, Everhart Museum, Scranton.

Persons desiring to compete in the examination must come to Harrsiburg at their own expense. Applications to participate must be filed fifteen days prior to the date of the examination. The fee is $12.50, which will be applied against the $25.00 fee, provided the applicant passes. The fees paid by those not passing will be deposited in the Game Fund to help defray the expenses incurred in holding the examination. Applications may be secured from the office of the Game Commission at Harrisburg, upon request.

## YOU'RE IN THE NAVY NOW!

He was truly a son of the great outdoors; a sportsman to the core,
An expert lensman, if you please, answering the call of War.
He roamed the wilds of our great state, stalking the wary game
Many a tireless hour was spent as he lay near a woodland glade
To snap an unusual photograph of bears and deer on parade.
He risked his neck as he climbed up trees and forded the raging streams
As he lay at night by the light of the stars he saw "pink elephants" in his dreams.
His daring reckless exploits were soon on the tip of every tongue
Causing many heads to wag and say "He'll probably die quite young."
As War suddenly came to America, Gordon Krieble answered the call;
He felt his amazing camera technique could serve the best interests of all.
This beloved land of ours which to us all has been meat and gravy
Will gain a new and distinguished son as Gordon joins the Navy.
As he embarks on the briny deep where the waves and wild winds howl
Where duty calls he'll take his place in the lands where the tyrants prowl.
We feel that we have lost a friend, the animals, too, will weep
But those of us who stay behind our trust to him will keep.
We cannot match the dauntless zeal of those in the front ranks
But by the Grace of God we'll keep on turning out the tanks.
We're proud of you; we admire you for your courage proven true;
So, Gordon: it's Fair Sailing, Bon Voyage and Godspeed to you.—Stanley Cooper.

## NOTES FROM THE FIELD

"On Friday, May 19. while in a blind watching for a tom to enter turkey area No. 19, I heard a noise behind me shortly after daybreak, then 3 or 4 'cutts.' A little later I was surprised to see a wild hen from the mountain pass close to where the tom was strutting and enter the area at the place provided for the tom to enter. The tom continued to strut until 10:00 a. m., then went away without entering the enclosure. I heard two other toms gobble near the area that morning."—Game Protector William Lane, Division "D."

"We had a forest fire on the west side of the Pine Creek Gorge, about one-half mile north of Refuge No. 516-B. This is a very good bear section and while Fire Wardens Carosn Butler and Bert Davis were trying to get back on top of the rim from Pine Creek by way of Four Mile Run, they saw an old bear and one cub coming down to the stream just ahead of them. The bear looked at the wardens and then waded across the water, about two feet deep, after starting the cub across a hemlock tree about 5 inches in diameter that had fallen across the stream. The cub walked out on the tree to where the limbs started to branch out and stopped there. The mother came back across the stream and started the cub out on the leaning tree again, but each time for three times the cub would go to the branches and stop there. The fourth time the mother came to the middle of the stream, she reached up her full length and got the cub by the neck, gave him a good shaking, carried him to the bank away from the fire, gave him a good hard cuff and went up the steep mountain to Colton Point.

Each time the old bear crossed the stream, she would look at the wardens, snarl and snap her teeth. These men stood about 100 feet down stream from the bears and it took about 15 minutes for the animals to get across."—Game Protector Hugh E. Baker, Division "C", District 2.

There is no substitute for character.

"A robin has built two complete nests side by side and has one egg in one of them. A young cowbird has hatched in a ground sparrow's nest and has cast the sparrow's eggs over the edge of the nest."—Game Protector Elmer Pilling, Centre County.

"On April 20 I noticed a marsh hawk fluttering around in a meadow. Upon investigation I found that it had killed a blacksnake about two feet long."—W. C. Achey, Game Protector, Division "B", District 11 and 12.

Skunks are, on the whole, beneficial animals. They eat largely, mice, grubs, worm and insects that are usually damaging o farms.

### SPOT A SUB!

Even if you can't go to sea and send depth charges booming down around a U-boat—you can help; **Your binoculars**, with keen Navy eyes behind them, can spy a submarine and see to it that there is one less marauder to murder helpless seamen and sink vital supplies.

The Navy needs either 6x30 or 7x50. made by Bausch & Lomb or Zeiss. Most binoculars have the power and millimeter measurements marked on them. Binoculars of less than six power have proved of small value at sea because they do not magnify objects sufficiently. High-powered binoculars with front lenses less than 30 millimeters wide also are of little use as they shut out too much of the light.

If your binoculars meet the requirements and you wish to lend them to the Navy, tag them with your name and address, pack them carefully and ship to: THE NAVAL OBSERVATORY, WASHINGTON, D. C. All binoculars accepted will be "purchased" for $1.00 each. If still in use at the end of the war they will be returned to the owners and the $1.00 will constitute a rental and depreciation fee.

Totem pole carved by John "Dad" Beck, of Williamsport, noted artist, taxidermist, and father of the late J. August "Gus" Beck, former member of the Commission.

## THE MAIL BAG

### A Veteran Advises

"The letter sent out to sportsmen's organizations by the Department some months ago, requesting a greater effort to improve feeding conditions by planting trees and shrubs, is a move in the right direction.

"As far as restocking is concerned we certainly cannot expect too much success if we don't have the proper cover or feeding conditions.

"Game stocked under such conditions is sure to be killed off because of no cover, starve to death because of lack of feed, or migrate in search of better living conditions. It cannot exist under such conditions any more than we can live under a bad roof, or on an empty table.

"Let's not kid ourselves into believing that our costly winter feeding program will solve the problem with feed being scattered in a more or less hit and miss manner a few days after each heavy snow storm; such a plan never will hold the game in the local covers where it is stocked.

"Planting costs less, is the best method to protect and feed game, and is the only way to supply feed in the right place at the proper time. Once the results of planting begin to manifest themselves game will emerge through the winter in better breeding condition and will pay us real dividends in a larger number o stronger young. Well scattered feed means well scattered game, which requires more effort to locate and kill it, and that is the real secret to a better supply.

"The letter does call our attention to one of the greatest needs of conservation, if we expect to have good hunting conditions in future years. But we are proud of the fact that Sugar Notch Camp No. 205 United Sportsmen did not need the letter to wake it up to such work. Our camp started planting with the help of others some twelve years or more ago. Today there are hundreds of young hickory trees growing over our mountains. Our Scouts and Mr. A. Greenwood, our local grocer, who furnished the Scouts with the nuts, played the big role in making our program a success.

"During the past year our club has purchased and released twelve dozen cottontails on open hunting grounds and planted one thousand pine trees, one hundred mountain ash, and two hundred barberry bushes.

"We scattered mountain ash, wild rose, greenbriar, sumac, bittersweet and barberry seeds over a large area. We planted a large number of butternuts, walnuts, hazelnuts, and hickory nuts, and transplanted many plants such as greenbriar and bittersweet.

"Last fall, after getting some advice from my friend James Morton, of the Game Commission, on how to handle mountain ash seed, I set a box of seed in my cellar, I now have one hundred seventy-six nice seedlings 5" to 30" in height in my garden to transplant on our mountain next spring. I will have another box this winter to replace those I set out in our game cover.

"I have only taken up about ten square feet of my garden to hold these seedlings. As a point of information to others who may wish to try raising those fine game food trees, I wish to advise that all that is necessary is a bunch of berries from any mountain ash tree. Crush them on an ink blotter to dry so you can handle them. Get a box any size you wish with some holes in the bottom and about three inches of good sandy loam. Take a small piece of paper and perforate it with small holes about one inch apart.

"Lay it on the soil and dampen so it will lie flat, drop one seed in each hole in the paper and cover with just enough soil to hide the paper, then top it off with about a half inch of small leaves, chaff or dry lawn clippings and set in a cool cellar. Dampen with a little water or snow about twice during the winter and set box out in the spring. You will soon see a young tree sprout out of each hole when the proper time comes. When a few inches high, transplant in your flower garden.

"The paper is my own idea to regulate the proper spacing in setting seed so the young trees will not come up too crowded to thrive in the box until set out. It will also keep down any weed seed which may be in the soil. **Do not remove the paper.**"—Roy J. Wotten, Secretary, United Sportsmen of Pennsylvania, Sugar Notch, Pa.

Old roster of the Commission loaned for publication by Charles B. Baum, Special Investigator. Thanks Charlie.

## GOOD INSECTS

(Continued from Page 12)

First, as a source of sweets, then as a pollenizer of blossoms, and finally for the many other products of bee industry for which man has found a hundred uses.

Passing on we note the commercial silkworm. We know that thousands of these crawley caterpillars have dedicated their lives in producing the finest of silken fabrics so useful in Peace or War. From the dried bodies of another insect a beautiful crimson dye is manufactured, while shellac, a valuable varnish, is derived from still another insect. Even the bodies and wings of insects are used for ornamental purposes in pictures, trays, and jewelry, and also it is known that certain kinds of insects are used directly to support human life. Although not considered generally as popular articles of diet, we are told that the natives of certain lands consider insects or their larvae, in some form or an-

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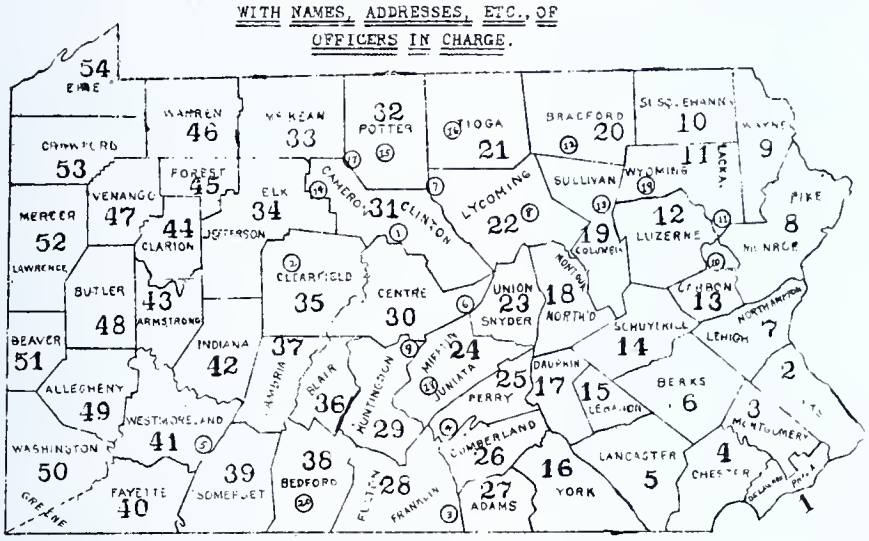
Florida farmers are rallying to save their quail supply with the aid of State and Federal game technicians.

Aroused by the scarcity of this favorite game bird, 90 percent of the farmers in Columbia County who were informed of the restoration program signed cooperative agreements with the State Commission of Game and Fresh Water Fish. In 10 days 85 cooperative agreements were signed, involving 24,493 acres. In Suwanee County, 4,092 acres of farm land were turned over to quail management practices. The work is being carried on with the aid of Federal funds under the Pittman-Robertson Act.

MAP OF PENNSYLVANIA
SHOWING DISTRICTS OF GAME PROTECTORS, LOCATION OF STATE GAME PRESERVES,
WITH NAMES, ADDRESSES, ETC., OF
OFFICERS IN CHARGE.




○ Indicates location of State Game Preserves, the number within the circle indicating the order of creation.

| DIST. NO.: | OFFICER IN CHARGE: | POST OFFICE ADDRESS: | EXPRESS ADDRESS: | TELEPHONE: |
|---|---|---|---|---|
| 1. | | | | Bell |
| 2. | Warren Fretz,..... | Bedminster,..... | Doylestown,... | " 66R25, Perkasie. |
| 3. | Jeremiah S.Reinert,. | Box 191, Lansdale,.... | Lansdale,.. ..... | " 425-W. |
| 4. | Norman M. Wood,..... | " 553, Coatesville,. | Coatesville,..... | " 116. |
| 5. | Samuel A. Keene,.... | Christiana,..... | Christiana,... ... | United 18. |
| 6. | Chas.F.Fenstermaker, | 239 N.11th St.,Reading, | Reading,..... | Bell 1409-M. |
| 7. | James D. Geary,..... | Slatington,..... | Slatington(Via Am) | " 56R11. |
| 8. | Wm. H. Merring,..... | East Stroudsburg,..... | East Stroudsburg,. | " 132-G,Stroudsburg. |
| 9. | Homer G.Sandercock,. | Ariel,..... | Lake Ariel,..... | " 42-3, Lake Ariel. |
| 10. | Warren F. Simrell,.. | Hallstead, ..... | Hallstead,. ..... | " 14-4. |
| 11. | Wm. Anneman,..... | 1243 S.Main, Scranton, | Scranton,..... | " 3128-R. |
| 12. | H.Bennett Hale,..... | Alderson,..... | Alderson,..... | " 101-11,Dallas Ex. |
| 13. | James L. Boyle,..... | Mauch Chunk,..... | Mauch Chunk,..... | " 214-M. |
| 14. | Albert F. Hartwig,.. | 212 Greenwood,Tamaqua, | Tamaqua,..... .. | United 955. |
| 15. | Wm. L. Ibach,..... | Newmanstown,..... | Sheridan(Leb.Co.). | Call Rising Sun Hotel. |
| 16. | Peter E. Vale,..... | 365 Duke St.,York,.... | York,..... | United 1229-J. |
| 17. | Jas.B. Lightner,.... | 619 Peffer St.,Hbg.,.. | Harrisburg, . . . | Bell 3537-W. |
| 18. | Chas.D.Madenfort,... | 129 S.Franklin,Shamokin, | Shamokin,..... .. | " 395-M. |
| 19. | Harry W. Miller,.... | RFD, Jamison City,.... | Jamison City,..... | " 47-16. |
| 20. | Fred L. VanOrman,... | LeRaysville,. ..... | Rummerfield,.. . . | Camptown & Independent. |
| 21. | | | | |
| 22. | Joseph Smith,..... | Muncy,..... .... ... | Muncy,..... | Bell 126-B2. |
| 23. | Chas.L.Braucher,.... | Hartleton,..... | Millmont,(Union Co.) | " 9-15. |
| 24. | Jno.J.Slautterback,. | 214 Logan,Lewistown,.. | Lewistown, ... . . | United 83-V. |
| 25. | S. Maurice Shuler,.. | Box 7, Liverpool,..... | Liverpool,.. .... | Bell & United 122. |
| 26. | W. C. Bowman,..... | Lemoyne,..... | Lemoyne,..... | " 3427-J,Harrisburg. |
| 27. | Guy R. Linn,... .... | RFD #1, Orrtanna,..... | Orrtanna,. ..... | United 633-D. Gettysburg. |
| 28. | | | | |
| 29. | John W.Bumgardner,.. | Trough Creek,..... | Entriken,..... .. | Bell, 250-W. Marklesburg. |
| 30. | Charley Batcheler,.. | Philipsburg,. ..... | Philipsburg,..... | Hunt.& Clearfield Phone. |
| 31. | Grant Stout,..... . | Renovo, ..... | Renovo,..... | Bell 38. |
| 32. | Wm. F. Hamilton..... | 19 School St. Galeton, | Galeton,..... | " 9-5R. |
| 33. | L. K. Hogarth,. .... | Smethport,..... | Smethport,..... | " 78-J. |
| 34. | (Henry Hilton,..... (A. H. Murray,..... | Box 126,Punxsutawney,. Big Run,..... | Punxsutawney,... Big Run,..... | " 130-R & Summerville-S. Summerville Phone #24 |
| 35. | | | | |
| 36. | Lem. C. Ale, ..... | Bellwood,..... | Bellwood,..... | Bell 23-R2. |
| 37. | K. B. Rodgers,..... | 560 Vickroy,Johnstown, | Johnstown,..... | Johnstown Phone 3207-L |
| 38. | Eli Ritchey,..... | Everett,..... | Everett,..... | Bell 80. |
| 39. | Harvey E. Bittner,.. | Meyersdale,..... | Meyersdale,..... .. | Economy Phone 177 (Bell). |
| 40. | | | | |
| 41. | H. R. Armbrust,Jr.,. | RFD #6, Greensburg,... | Greensburg,..... | Bell, 343-3. |
| 42. | Iddo M. Lewis,..... | Marchand,..... | Savan,..... | " Marchand Exchange |
| 43. | Daniel M. Slagle,... | RFD #6,New Bethlehem,. | Putneyville,..... | B.H.Putney, Putneyville. |
| 44. | H. N. Fenstamaker,.. | Clarion,..... | Clarion,... .. .. | Bell 737-J. |
| 45. | H. Edward Gillespie, | Kellettville,..... | Kellettville,..... | Forest County Phone. |
| 46. | Elmer L. Pilling,... | Pittsfield,..... | Pittsfield,..... | Bell 41-R5,Youngsville. |
| 47. | Herbert L.Beatty,... | 532 Elk, Franklin,.... | Franklin,..... | Petroleum Phone 966-X. |
| 48. | Joseph M. Curts,.... | 231 W.Pearl, Butler,.. | Butler,..... | Bell 737-J. |
| 49. | James Sutton,Jr.,... | 3811 Dawson, Pittsburgh, | Pittsburgh,..... | " 1474-J-Schenley. |
| 50. | Jos. P. Kennedy,.... | Monongahela,..... | Monongahela,..... | " 123-M. |
| 51. | Jos. A. Campbell,... | RFD #1,New Sheffield,. | Woodlawn,..... | Beaver Co.Tel.5-1,Rochester. |
| 52. | Henry J. Sines,..... | 1511 E.Wash.,N.Castle, | New Castle,..... | Bell 2228-L. |
| 53. | Geo.M.Langdon,..... | Titusville,..... | Tituaville,..... | United or Bell #622-F. |
| 54. | Alex.A.MacDonald,... | 324 E.6th St.,Erie,... | Erie,..... | Bell 2176-M & Mutual 1388Y. |

GAME PRESERVE KEEPERS:

| | | | | |
|---|---|---|---|---|
| 1. | John B. Ross,..... | Renovo,..... | Renovo,..... | Bell 918-R2, Renovo. |
| 2. | I. A. Dunlap,..... | Anderson Creek,..... | Clearfield,..... | H.& C.(Bell) #9L,Clearfield. |
| 3. | Seward Staley,..... | South Mountain,..... | Mont Alto,..... | Bell, #931R11,Waynesboro. |
| 4. | John W. Fenton,..... | New Germantown,... ... | New Germantown,... | " Blain Exchange. |
| 5. | Norman W. Shawley,.. | Rector,..... .. | Ligonier,..... | " 186-3, Ligonier. |
| 6. | Harry J. Wingard,... | Coburn,..... | Coburn,..... | " 40-R2, Millheim. |
| 7. | C. B. Love,..... | Slate Run,..... | Slate Run,..... | " Waterville Exchange. |
| 8. | Chas. H. Snyder,.... | Williamsport(Star Rt.) | Montoursville,. .. | United 39-L, Montoursville. |
| 9. | W. E. Aurand,..... | Milroy,..... | Milroy,..... | Bell 181,Reedsville (M&R). |
| 10. | H. N. Leacock,..... | White Haven,..... | White Haven,..... | " 40R3, White Haven. |
| 11. | | | | |
| 12. | J. S. Fenton,..... | RFD #1, Canton,..... | Canton,..... | Bell. Leroy Exchange. |
| 13. | Edwin W.Carpenter,.. | Jamison City,..... | Jamison City,..... | ". 47-66, Benton Ex. |
| 14. | S. A. Shaffer,..... | RFD #3, Emporium,..... | Emporium,..... | |
| 15. | Harry VanCleve,.. .. | Conrad,..... | Hull,..... | |
| 16. | Stephen C. Baker,.... | Asaph,..... | Ansonia,..... | Bell, Wellsboro 89-22. |
| 17. | Samuel J. Nelson,... | Sizerville,..... | Sizerville,..... | " 902R22,Emporium Ex. |
| 18. | Ralph E. McCoy,..... | RFD, Mattawanna,..... | McVeytown,..... | " Mattawanna Exchange. |
| 19. | A. M. Hettesheimer,. | RFD #1, Noxen,..... | Noxen,..... | |
| 20. | Wm. F. Rawlings,... | Rainsburg,..... | | |

FIELD SUPERINTENDENT:
E. W. Kelly,... . DuBois, .. DuBois, .... . Bell 199-L.

TRAVELING GAME PROTECTOR:
Charles B. Baum 1420 Liberty Harrisburg, Harrisburg, Bell 3237-M.

-w Dec. 26th 1917.

OFFICE OF THE BOARD OF GAME COMMISSIONERS
FOURTH FLOOR, FRANKLIN BUILDING,
HARRISBURG, PA.
DR. JOSEPH KALBFUS SECRETARY

Shots at random →

# A RICH HERITAGE

*Continued from Page 3*

Photo by W. Gard. Conklin in 1939

**Type of area purchased in Greene County. State Game Lands No. 179.**

options, making land examinations, and title and survey work. The accumulated cost of such items over the 22 year period has amounted to a large sum. Unfortunately, records to determine the total amount are not available for the entire period. As a matter of fact, much of the work was accomplished by salaried employees whose time is not charged against the tracts of land concerned. It is quite likely, if known, that the total amount would be approximately $700,000.00.

Certain Federal Aid in Wildlife Restoration funds have been applied to the purchase of lands during the past three years. Of these funds, $137,946.61 is included in the $2,704,-354.45 paid to landowners. It represents 75% of the amount paid for 44,,400.3 acres, and is only one-half of one per cent of the total amount paid for the 700,306.4 acres.

The low average price of $3.86 per acre, and the wide distribution of State Game Lands throughout the State, is conclusive evidence that the Commissioners have been cautiously selective in their acceptance of offers. Only those for the right type of land, in the right location, at reasonable prices, and without reservations of any kind, or only such as to interfere least with the use of the land for wildlife purposes, are accepted. Every possible precaution is taken to conduct the land purchase program with extreme care, economically, and to avoid any justifiable criticism that unwise purchases are made.

The 700,000 acres acquired were conveyed to the Commonwealth, for use of the Commission and sportsmen, by 1034 deeds. These deeds, in accordance with law, are filed permanently in the Department of Internal Affairs, which is the custodian of all deeds for Commonwealth-owned lands. However, before transmittal to that Department they are completely transcribed in large canvas-backed books made especially for the purpose. Deeds are also indexed in a separate book, likewise made for this particular purpose. The system followed is similar to that in vogue in the Recorders' offices of the respective County Court Houses.

The Commission's land record system includes two other large canvas-backed books. In one are grouped in tabular form deeds for the various tracts comprising each of the 174 blocks of State Game Lands. The total acreage in each block and the amount paid, as well as exceptions and reservations affecting the various tracts, are readily available. That book also contains a summary of deeds secured during each fiscal year, from which acquisition data for any and all years can quickly be determined. In the other book is kept a record of acreages purchased in each of the 342 townships in which State Game Lands are now located, and on which statutory fixed charges are paid in lieu of taxes.

This comprehensive system of recording lands acquired, from which total acreage and cost data in summarized form can be secured whenever wanted, is another matter of pride.

Many tracts purchased are owned by more than one person or company, which often necessitates securing separate options and entering into separate land purchase contracts. A total of 1201 contracts have been entered into. In a great many cases, divided interests require the issuance of a number of settlement checks for the purchase of one tract. Several thousand checks have been drawn on the State Treasurer to pay for lands acquired to date.

Careful and systematic procedures are observed in determining the validity of titles for tracts accepted for purchase by the Commission, and in surveying the boundary lines. Each title is methodically and thoroughly examined by searching records in the County Court House concerned, and the "history" obtained is written into an abstract. This abstract shows all transactions affecting the title over a long period of years, usually a hundred or more. Defects or discrepancies disclosed must be corrected by the landowners. While this work is in progress, the boundary lines of each tract are surveyed to determine their true location on the ground, and to secure data required from which to construct an accurate map and to compute the acreage upon which settlement is based. When completed, the abstract is submitted to the Department of Justice for final approval of the title, after which settlement is made and title vested in the Commonwealth. All title abstracts are bound, numbered and filed for future reference. The systematic and efficient procedures observed in these two essential phases of land acquisition work are also a matter of pride.

Pennsylvania's system of game refuges and public hunting grounds is fairly well known. Nevertheless, the story bears occasional repetition, and as the more important "historical" facts will aid in explaining reasons for pride in achievement, a repetition here appears appropriate.

Photo by W. Gard. Conklin in 1930

**Sub-marginal farm in Bedford County, purchased in 1929. State Game Lands No. 49.**

The Game Commission, in 1905, established in Clinton County its first primary game refuge on State Forest land, the only publicly-owned land then available. Additional refuges were set up during subsequent years, and continued to prove their worth in increasing the supply of forest species of game, thus providing better hunting.

The aggregate area of State Forests had almost reached the million-acre mark in 1919. (It is now over 1,600,000 acres). Practically all of this splendid mountain territory was reasonably well stocked with game, and with the exception of certain park areas and game refuges, was and still is open to lawful public hunting. This publicly-owned State Forest land provided an object lesson to Pennsylvania sportsmen, then totalling about a half million. They, or at least the more foresighted among them, recognized the wisdom and economy of public ownership of several millions of acres of land, but recognized the fact that the Department of Forests and Waters could not hope to secure sufficient appropriations from the Legislature to purchase the huge acreage desired. Consequently, in 1919, sportsmen themselves proposed to the Legislature the passage of an Act authorizing the Game Commission to purchase lands from the Game Fund, to be used primarily for game refuge and public hunting purposes. The Legislature did so. This foresight on the part of sportsmen, coupled with their willingness to use part of the money which they annually paid into the Game Fund with which to purchase game lands, has since then produced favorable results far beyond their fondest dreams at that time.

During 1920, following the passage of this very noteworthy Act of the Legislature, the Game Commission agreed to purchase seven large mountain tracts, totalling 45,598.3 acres. Only one tract, however, became State Game Lands that year. It was located in Elk County, contained 6,288 acres, was purchased from the Wright Chemical Company, and designated State Game Lands No. 25, said number corresponding to the identity of the State Game Refuge previously established thereon under lease. In 1921, title for another tract in Bradford County, previously leased from the Central Pennsylvania Lumber Company, containing 7,492.9 acres, was conveyed to the Commonwealth and designated State Game Lands No. 12. During that same year, State Game Lands Nos. 26, 28 and 29 came into existence. The total area which had been acquired by the end of the second year was 37,747 acres.

Photo by W. Gard. Conklin in 1931

**Mill Creek within State Game Lands No. 74, Clarion County, acquired in 1937.**

Most of the tracts purchased during the first few years had previously been leased, for which the Commission paid the taxes. These taxes amounted to a fairly large sum of money each year and it was evident that purchase of the lands would be more economical than continuing to pay them. Another matter of importance was that by owning the lands they could be managed as the Commission deemed necessary to produce as large a game crop as possible. Game management practices were not always permissible on leased lands or on State Forests. There was ample opportunity for establishing numerous game refuges within the million acres of State Forests, but since such lands were intended primarily for the production of timber crops and protection of water-sheds, their management could not always be expected to produce a maximum game crop. This was one of the reasons why sportsmen considered it desirable to acquire their own lands.

Only a few years experience was required to prove conclusively the wisdom and economy of sportsmen owning their own land, but it also soon became apparent that more money would be required than the Commission could afford to pay from its revenues at that time. Consequently, sportsmen again took the initiative and proposed an increase of 75c to the then $1.25 Resident Hunter's License fee, with the understanding that the increase be used solely for the purchase and management of game lands. Complying with their wishes, the Legislature in 1927 passed an appropriate Act.

At that time, State Game Lands totalled only 92,640.6 acres. Additional funds made available as a result of the 75c increase naturally greatly stimulated the land purchase program although actual results were not apparent until the fiscal year June 1, 1928 to May 31, 1929. During that year title was secured for 42,865.9 acres, which brought the total area of State Game Lands to 145,407.3 acres. Their growth is shown in the following tabulation. A fiscal year begins June 1, and ends the following May 31st.

| Fiscal Year | Acreage Acquired during Fiscal Year | Total Acreage Acquired by end of Fiscal Year |
|---|---|---|
| May 31, 1927 | | 92,640.6 |
| 1927-28 | 9,900.8 | 102,541.4 |
| 1928-29 | 42,865.9 | 145,407.3 |
| 1929-30 | 28,144.1 | 173,551.4 |
| 1930-31 | 69,837.1 | 243,880.5 |
| 1931-32 | 76,753.3 | 320,141.8 |
| 1932-33 | 44,630.7 | 364,772.5 |
| 1933-34 | 61,802.3 | 426,574.8 |
| 1934-35 | 38,847.2 | 465,422.0 |
| 1935-36 | 41,984.4 | 507,406.4 |
| 1936-37 | 45,036.8 | 552,443.2 |
| 1937-38 | 30,914.5 | 583,357.7 |
| 1938-39 | 20,187.2 | 603,544.9 |
| 1939-40 | 33,136.0 | 636,680.9 |
| 1940-41 | 25,128.8 | 661,809.7 |
| 1941-42 | 38,496.7 | 700,306.4 |

The cost of managing lands gradually increased as the acreage became larger, and the amount which could be used for acquisition decreased proportionally. This is indicated by the comparatively small area,

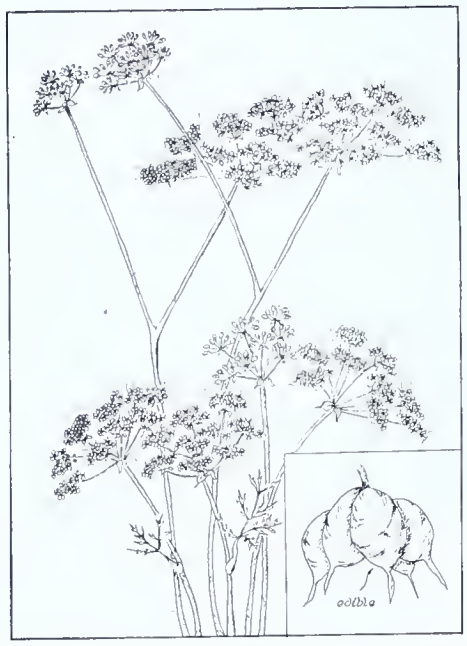
(Continued on Page 32)

Photo by W. Gard. Conklin in 1929

**Tracts are occasionally purchased subject to a timber reservation for a short period of time. Here timber over eight inches in diameter is being cut.**

# WOULD YOU STARVE?

*Continued from Page 6*



**ARROWHEAD, CARUM AND MARIPOSA OR SEGO LILY**

**The roots of all three of these served the Indian as food and are sufficiently widespread to keep the lost camper or hiker from starving. They are at their best in the spring or in the fall.**

The results of these experiments give a new meaning to and feeling for common wayside plants. We can look at the lowly cattail of our roadside sloughs and say: "Lost and hungry, we still could survive as long as you are here."

Indians used, at some time, virtually all of the cattail for food, shelter, or clothing. In early spring the succulent young shoots were gathered and stewed. Later, the flowering ends contributed a kind of meal from the pollen and the ingredients for a rather flowery soup. In autumn the thick roots were dug and eaten raw or roasted, ground into meal as a part of the winter food supply, or boiled to make a syrup to sweeten favorite Indian dishes. Chemists say flour from cattail roots is highly nutritious, equal to that of corn and rice.

In late May or early June, when the upper part of the cattail mace is a full spike of golden, pollen-filled flowers, the Indians lined their canoe bottoms with blankets, paddled among the reeds and collected the golden mass of the pollen. This we, too, may do, and if we have come prepared with a sourdough base, or the "makings" for a baking-powder batter, we can enjoy a taste thrill with cattail flapjacks. This is a truly unusual but appetizing breakfast dish, a flavor not unlike that of corn friters.

The yellow pond lily, or spatterdock, formed an important food on the Indian's menu, both its roots and its seeds. The former were harvested by the women who waded into the pond, worked the mud away from them with their feet, then pulled the roots from the water with a hooked stick. When fully ripe in the fall these tubers are porous, glutinous, and slightly sweet, and may be boiled with wild fowl or roasted.

Seeds of the pond lily were gathered when the pods burst open, at which time they are readily washed out from the mucilaginous pulp. They were then dried and ground into meal for porridge or bread, or parched and eaten as we do popcorn. Spatterdock mush, made from the parched seeds ground between flat stones, served with cream and sugar and topped with wild raspberries, makes a worthwhile breakfast cereal. Cooked, sliced and fried in bacon drippings, it is a tasty basis for a camp supper.

Seeds of several other native plants can be similarly used, notably those of the sunflower, the evening-star flower *Mentzelia*, *Salvia*, blue flax, and curly dock, *Rumex*. Parched seeds of the sunflower and the *Mentzelia* are a real treat. The latter were esteemed by the Indian in whose territory they grew, and were regarded as a luxury rather than a staple food, the meal made from them being eaten in little pinches from the hand. Cooked as mush they have a pleasant aromatic flaver.

Flax seeds were much used in Indian cookery, both for their nutritive value and for the flavor they imparted to other foods with which they were cooked. Seeds of *Salvia* resemble these in properties and taste. Mush made from curly dock seeds, while not so agreeable as some others, would prevent starvation. Sunflower seeds pounded into a fine meal and added to a soup of corn and beans forms a rich, nutritious and interesting dish. Young seed pods of the yucca were boiled until tender and eaten cold, between meals, but were never combined with other foods.

Early in the season there is no lack of plants that make good greens and pot herbs. The Indians knew and used many of these. Cooked as a part of a camp menu, or used in salads, they substitute for green vegetables and lettuce—both difficult to carry on an outing—and assure the camper of his vitamins for the day.

Fireweed is a widespread plant. Peoples all over the northern hemisphere have used its shoots, leaves, bark and roots. In Sweden the new shoots are eaten as a potherb, much as asparagus; the American Indian ate them raw. In Russia the leaves are an adulterant for tea. The tender young leaves make appetizing greens.

The foliage of dandelion, wild lettuce and mustard, lamb's quarters, common thistle and sheep sorrel serve similarly, and are particularly tender and pleasing early in the spring. The sorrel was even used in pies by the early settlers in the regions where it thrives. The tender leaves of the Rocky Mountain beeplant were cooked with fresh corn cut from the cob and highly seasoned with chile by Indians of the Southwest. Young plants of the wild sweet pea, taken when only about three inches high, were frequently cooked and eaten for greens.

Spring shoots of the marsh marigold are palatable, but being members of the buttercup family they must first be thoroughly cooked to render them harmless and wholesome. The cow parsnip, large plants of streamsides, can be safely eaten if taken when young, before the plant acquires the acrid taste that it has at maturity. In this early stage, the leaf stalks roasted over a fire and with the outer rind peeled off have a flavor rather like that of celery. In later stages of growth the plant is considered poisonous. Leaves of the monkey flower (*Mimulus*), the ubiquitous weed purslane, and watercress, are all good green salad material. Leaves of mints and related members of its family make excellent tea when steeped in hot water.

Before the white man, with his cultivated foods, the milkweed formed a staple item on the Indian's menu. The young shoots of early spring were prepared as we cook asparagus, or, together with the first tender leaves, were boiled with meat. The clusters of floral buds were next gathered and used in soups; the flowers were cut up and stewed, to be eaten as preserves. A crude sugar was also prepared from the strong-scented blossoms, by gathering them in the morning before the dew had evaporated. The young seed pods were used in soups, much as is okra, cooked with meat or even added to cornmeal mush And in late fall the roots of some species were boiled or roasted.

Lost high above timberline, there is at least one plant upon which one could subsist until a more palatable meal was available. This is the big-rooted spring beauty, with its thick fleshy roots, of the same family as the lower altitude spring beauty, known east and west

The crisp, nuty-flavored corms were much prized by the Indians. These may be eaten raw or boiled.

Roots of the arrowhead, carum or "yampah", mariposa lily, camas, wild blue lupine, the common thistle, pealike *Psoralea* or "Indian breadroot", balsam root, and the evening primrose have all served the Indians as food, and are sufficiently available over the country to keep the camper from starvation. They are at their best when gathered very early in the spring before the growing season, or in the fall when food has again been stored in the roots.

Roots of the arrowhead, or "wapatoo", form a nourishing meal when roasted with wild meat. Yampah, *Carum* (our caraway is of the same genus), is a tastier dish, having a distinctly nut-like flavor when raw; carroty when cooked. After the roughish, dark, outer skin is removed, the small clustered roots, looking more like misshapen peanuts than anything else, may be eaten raw, chopped or shredded and utilized in salads, boiled, or baked in hot ashes or in a pit. The lupine roots taste a bit like sweet potato when boiled or roasted.

The parsnip-like root of the thistle turns black in cooking, giving rise to its name 'black-root", but it is quite toothsome; while roots of the tall-growing, yellow-flowered evening primrose, when scraped, sliced and boiled with potatoes and onion, turn the whole mixture a delightful pinkish color. The psoralea, commonly known as "breadroot" and "prairie potato", is turnipy in taste and may be baked in hot ashes just as one does potatoes. Bulbs of all species of wild onion make good flavorings for meats and soups, or may be eaten raw as a relish or fried. Salsify has escaped from cultivation to grow in fields and waste places, and is now quite common everywhere. Its roots are an excellent basis for a nourishing soup.

Wild fruits and berries abound throughout America. Most of these are edible; some are especially delicious. A few, such as the baneberry, are poisonous and should be avoided.

Wild cherries, service or "sarvis" berries, buffalo berry, choke cherry, berries of the false solomon's seal, twisted stalk and bunchberry, currants, gooseberries, raspberries, huckleberries, blueberries, bilberries, grapes, ground cherry, and the "prickly pears" of the cactus, are all fruits extensively used by the Indians, eaten raw, made into sauces, or dried and stored for winter use. The strawberry was found too juicy to dry for winter, but was enjoyed during its season.

The berries of the bearberry, or kinnikinnick, were cooked with meat as a seasoning for the broth. When fully ripe, berries of the nightshade were boiled, ground, and mixed with chile and salt to be eaten as a condiment with mush or bread. The green fruit was, and is, considered poisonous. Berries of the Oregon or holly grape, *Berberis*, were bruised, sweetened, and mixed with water to make a pleasant drink. Rose hips and the tiny apples of the hawthorn have furnished the Indian food.

Of these many fruits the camper or hunter will find most appetizing when raw the raspberry, strawberry, wild grape, huckleberry, and blueberry. The others can be kept in mind for the "very hungry" stage, or can be carried home for the making of sauces and jellies.

A few nut-bearing trees are found in various parts of the country. In the Rockies we have only one of any consequence, the hazelnut. Acorns were much used by the Indians, and after having had the tannic acid leached from their meats, were added to soups, imparting a creamy texture. Pulverized nut meats, to which water had been added, substituted for cream in the Indian dietary.

One need not starve with this wealth of native food material at hand. But there is one final warning: have some knowledge of plants before eating them. Such knowledge is not hard to come by; the flora of every section is adequately described and illustrated in popuuar, simply-treated manuals. An excellent bulletin on Indian food plants is published by the United States Department of Agriculture. In this way can be avoided the dangers of the water hemlock, the roots of which could be confused with those of *Carum*; the death camas, sometimes fatally mistaken for the true camas; the roots of pokeweed and aconite, the seeds of the Jimson weed, *Datura*, the attractive red, but harmful berries of the baneberry, and others having poisonous properties.

## RECIPES

### Cattail Flapjacks

Two cups cattail pollen and 2 cups flour; 2 eggs, or 2 tablespoons egg powder; ½ cup evaporated milk; 1½ cups water; 1 tablespoon sugar or maple syrup; bacon drippings.

Beat eggs, add milk, water and maple syrup. Mix and add dry ingredients, beating until mixture is creamy. Add melted bacon drippings. Fry in a hot greased pan over a camp fire. Makes about 20 cakes.

### Spatterdock Mush

Prepare the pond-lily seeds by breaking the large pods open in a bucket of water and separating the seeds from the sticky pulp by washing. Spread out in the sun to dry. Cover the bottom of a frying pan with the dried seeds and hold over a slow fire, shaking the pan and stirring the seeds about, much as is done in popping corn, thus parching them. A coarse meal is then made by grinding the parched seeds with flat stones.

Bring to a boil four cups of water to which a pinch of salt has been added. Stir in one cup of the meal. Boil briskly for about fifteen minutes, stirring constantly, then set far enough from the blaze that it will not scorch, and cook slowly for nearly an hour. Stir the mixture occasionally, and if it seems to be getting too dry, add boiling water to thin. Serve hot with raspberries or blueberries and cream and sugar.

If any of the porridge is left, pour into a greased pan, let cool, then slice and fry in butter or bacon drippings for the evening meal. Serve with syrup, jelly or honey.

### Milkweed, Rice and Tomatoes

Gather the milkweed pods when they are no longer than an inch or an inch and a half. At this time the entire mass is tender, rich and juicy, very like the popular okra. Wash thoroughly, as dust clings readily to their fuzzy surfaces. Cut off the tips and slice, examining each pod carefully for insects.

Over a regulated fire, bring to a boil two vessels of water. To one add a pinch of salt, and in this cook one cup of rice. In the other gently boil one quart of the milkweed slices until tender or for about half an hour, add-

(Continued on Page 32)

**MILKWEED, CATTAIL AND FIREWEED**

**All three of these are a valuable and healthful source of food in an emergency and otherwise. The milkweed pod and cattail, in particular, are versatile sources of nourishment when the occasion warrants.**

# TRAPPING LICENSES ISSUED FOR THE YEAR

| State | | Number of Licenses | Money Returns |
|---|---|---|---|
| Alabama | | 2,439 | 6,097.50 |
| Arizona | | 650 | ---- |
| Arkansas | | 53,132 | ---- |
| California | | 1,928 | 1,955.00 |
| Colorado | | 2,606 | 5,235.00 |
| Connecticut | | 2,007 | 8,367.45 |
| Delaware | | 14,203 | 16,580.10 |
| Florida | | 1,476 | 4,752.00 |
| Georgia | | 952 | 2,571.00 |
| Idaho | | 1,275 | 6,495.00 |
| Illinois | | 14,146 | 28,428.00 |
| Indiana | | 386,164 | ---- |
| Iowa | | 11,179 | 15,769.25 |
| Kansas | Est. | 14,000 | 14,000.00 |
| Kentucky | | 165 | 140.25 |
| Louisiana | | 9,678 | 19,356.00 |
| Maine | | 2,283 | 16,940.00 |
| Maryland | | 74,035 | ---- |
| Massachusetts | | 2,205 | 9,933.25 |
| Michigan | | 19,650 | 19,650.00 |
| Minnesota | | 17,886 | 29,568.00 |
| Mississippi | | 1,814 | 9,070.00 |
| Missouri | | 26,164 | 52,328.00 |
| Montana | | 2,803 | 32,204.00 |
| Nebraska | | 3,424 | 8,560.00 |
| Nevada | | 12,823 | ---- |
| New Hampshire | | 717 | 3,872.55 |
| New Jersey | | 128,018 | ---- |
| New Mexico | | 444 | 678.40 |
| New York | | 16,363 | 34,502.71 |
| North Carolina | | 1,938 | 4,389.00 |
| North Dakota | | 7,375 | 7,375.00 |
| Ohio | | 542,303 | ---- |
| Oklahoma | | 1,341 | 1,341.00 |
| Oregon | | 1,619 | 4,857.00 |
| Pennsylvania | | 678,688 | ---- |
| Rhode Island | | 8,554 | 18,151.00 |
| South Carolina | | ---- | ---- |
| South Dakota | | 2,511 | 5,022.00 |
| Tennessee | | 46 | 103.50 |
| Texas | | 12,648 | 10,118.45 |
| Utah | | 492 | 2,410.80 |
| Vermont | | 1,873 | 2,109.20 |
| Virginia | | 1,960 | 3,367.00 |
| Washington | | 1,605 | 8,025.00 |
| Wisconsin | | 19,734 | 37,384.65 |
| Wyoming | | 954 | 662.00 |
| UNITED STATES | | 2,108,279 | 452,369.06 |

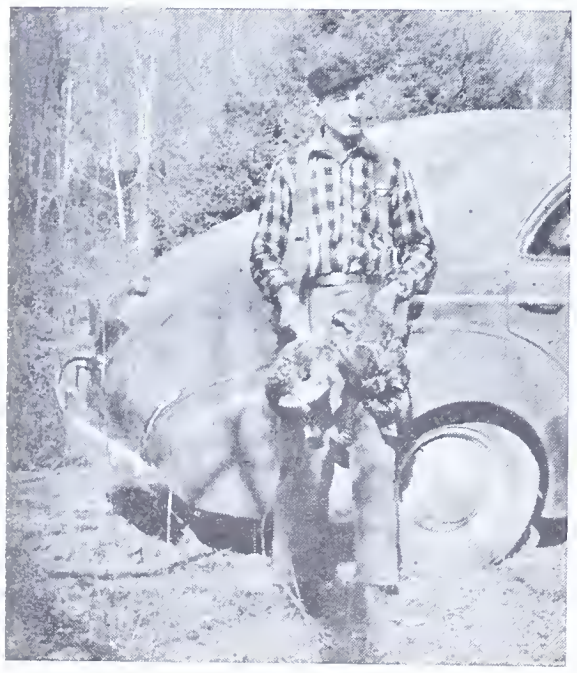
Trapping - July 1, 1940 to June 30, 1941

More than 2,000,000 persons were granted licenses authorizing trapping of furbearers. However, due to combination licenses, many holding such licenses did not participate in trapping. By counting only one-tenth of the combination license issued in such States as Indiana, Ohio and Pennsylvania as representing potential trappers, it is estimated that nearly 400,000 persons engaged in trapping with estimated license fees of approximately $450,000.

Fur dealers licenses reported by the States amounted to $17,426.00 but may not have been complete.

Old Age, Veterans and Special Licenses
Issued by States July 1, 1940 to June 30, 1941

Alabama..... 635 special permits at $1.00
Arkansas..... Resident hunting license permits the use of 12 traps
Connecticut..... 5,260 licenses to persons over 65 years fee 35¢
Idaho..... 1,075 Old Age and 24 Spanish American
Louisiana..... 9,638 Old Age
Maryland..... 1,761 Duck blind, pusher and sneak-boat licenses netted $8,259.30
Massachusetts..... 8,650 Hunting, fishing and trapping free to persons over 70 years
New Mexico..... 350 Complimentary licenses issued
Pennsylvania ..... 19 Complimentary licenses issued to non-residents
Rhode Island..... 381 licenses issued to persons over 65 years
Utah..... 27 Guide licenses issued
Virginia..... Waterfowl blinds netted $4,055.00
Wyoming..... 3,375 Old Age hunting and fishing and 10 Complimentary licenses issued



M. J. DeBerti, Brookville, Pa., with four fine grouse, the day's bag of he and a friend.

# PENNSYLVANIA COOPERATIVE RESEARCH

(Continued from Page 5)

counts. Drs. P. F. English, R. L. Watts, and Logan J. Bennett worked on the food and food preferences of the black bear from 1938-42 based on material sent in by game protectors and other cooperators. A report on the bear studies will be published in an article in the GAME NEWS this coming year.

In addition to aiding on several of the above projects Logan J. Bennett and P. F. English carried on food habits studies of pheasants, quail, red fox, and gray fox, and assisted the Commission on pheasant damage studies. All of the above work has been reported on in separate articles in the GAME NEWS.

War conditions have changed many phases of our life and more changes will, no doubt, follow in the near future. These changes affect game administration in many ways. One big example of this will be the effect of gasoline rationing on hunting. This year and, perhaps, for several years the game will be hunted very intensively in the vicinity of cities and town; while the game in the remote regions probably will be under-shot. Such a situation will call for revised game management procedures. There will be many other problems brought about by the war. Research will be needed in many cases to aid in solving the problems. The Pennsylvania Cooperative Wildlife Research Unit will do its utmost to aid in meeting the changing demands upon our wildlife resource.

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God give us men! A time like this demands
Strong minds, great hearts, true faith, and ready hands,
Men whom the lust of office does not kill;
Men whom the spoils of office cannot buy;
Men who possess opinions and a will;
Men who have honor—men who will not lie.

—Holland.

# A NOTE ON PREDATION

On March 30 of this ear I put down eight quail in a group on a farm near Phoenixville, Chester County. This was an experimental release to be watched closely for results.

Thomas McAvoy, Jr., who assisted in the stocking of the birds, had agreed to "keep an eye" on them. Returning home in the dark two nights after the planting was made, he caught the flash of cat eyes in the beam of his automobile headlights near the point of release. He went to his home, got his gun, and succeeded in killing the prowler.

The next morning I opened the cat's stomach. The photograph tells the rest of the story—two freshly killed quail eaten in their entirety.

I wonder how many more of our newly planted birds and rabbits are lost in this same manner. Doubtless we should grant homeless cats closer attention.—Roger Latham.

# Hunting License and Federal Duck-Stamp Returns

July 1, 1940 to June 30, 1941

| State | Resident Licenses Permits | Non-Res. Licenses Permits | Total | Fees Paid By Hunters | Federal Duck Stamps |
|---|---|---|---|---|---|
| Alabama..... | 109,637 | 673 | 110,310 | $170,082.00 | 6,590 |
| Arizona..... | 28,615 | 357 | 28,972 | 89,738.00 | 3,951 |
| Arkansas..... | 53,132 | 2,032 | 55,164 | 110,874.30 | 16,330 |
| California..... | 283,557 | 1,566 | 285,123 | 719,756.00 | 86,953 |
| Colorado..... | 156,042 | 1,600 | 157,642 | 460,041.50 | 24,453 |
| Connecticut.... | 28,922 | 351 | 29,273 | 118,667.65 | 6,733 |
| Delaware..... | 14,203 | 150 | 14,353 | 17,747.95 | 3,646 |
| Florida..... | 59,668 | 865 | 60,533 | 145,982.00 | 14,717 |
| Georgia..... | 85,125 | 1,188 | 86,313 | 145,243.07 | 3,992 |
| Idaho..... | 102,222 | 828 | 103,050 | 217,804.00 | 20,516 |
| Illinois..... | 324,879 | 1,140 | 326,019 | 504,418.50 | 64,212 |
| Indiana..... | 385,626 | 538 | 386,164 | 586,778.00 | 18,882 |
| Iowa..... | 201,056 | 70 | 201,126 | 251,406.00 | 40,670 |
| Kansas..... | 84,017 | 240 | 84,257 | 85,697.00 | 26,915 |
| Kentucky..... | 120,260 | 335 | 120,595 | 123,777.50 | 4,611 |
| Louisiana..... | 115,336 | 1,317 | 116,653 | 123,581.00 | 43,079 |
| Maine..... | 92,139 | 5,540 | 97,679 | 178,670.48 | 10,017 |
| Maryland..... | 72,689 | 1,346 | 74,035 | 145,956.80 | 11,011 |
| Massachusetts.. | 77,437 | 439 | 77,876 | 195,469.00 | 19,464 |
| Michigan..... | 713,925 | 4,356 | 718,281 | 995,071.25 | 94,180 |
| Minnesota..... | 354,449 | 443 | 354,892 | 453,298.25 | 118,931 |
| Mississippi.... | 106,744 | 830 | 107,574 | 155,197.00 | 9,211 |
| Missouri..... | 205,749 | 727 | 206,476 | 369,236.50 | 26,723 |
| Montana..... | 132,934 | 516 | 133,450 | 240,250.00 | 23,645 |
| Nebraska..... | 131,555 | 897 | 132,452 | 174,414.85 | 26,745 |
| Nevada..... | 11,883 | 949 | 12,832 | 39,242.50 | 6,403 |
| New Hampshire.. | 55,122 | 2,479 | 57,601 | 167,113.45 | 3,226 |
| New Jersey..... | 126,818 | 1,200 | 128,018 | 294,858.00 | 20,525 |
| New Mexico..... | 26,864 | 1,501 | 28,365 | 124,499.75 | 5,077 |
| New York..... | 564,618 | 4,057 | 568,675 | 1,058,980.40 | 42,934 |
| North Carolina. | 142,922 | 2,365 | 145,287 | 275,522.00 | 9,965 |
| North Dakota... | 54,836 | 275 | 55,111 | 105,579.00 | 17,584 |
| Ohio..... | 542,402 | 272 | 542,674 | 546,082.75 | 23,558 |
| Oklahoma..... | 99,630 | 228 | 99,858 | 109,765.00 | 25,199 |
| Oregon..... | 105,058 | 1,024 | 106,082 | 380,655.50 | 32,239 |
| Pennsylvania... | 665,960 | 12,728 | 678,688 | 1,522,840.00 | 22,044 |
| Rhode Island... | 8,433 | 121 | 8,554 | 18,151.00 | 3,239 |
| South Carolina. | 84,373 | 3,486 | 87,859 | 160,853.00 | 5,554 |
| South Dakota... | 85,293 | 6,319 | 91,612 | 204,693.00 | 25,446 |
| Tennessee..... | 88,138 | 433 | 88,571 | 180,546.50 | 10,600 |
| Texas..... | 128,044 | 581 | 128,625 | 270,613.00 | 77,300 |
| Utah..... | 83,539 | 2,714 | 86,253 | 272,599.00 | 16,886 |
| Vermont..... | 43,328 | 1,796 | 45,124 | 81,105.45 | 3,153 |
| Virginia..... | 155,505 | 2,348 | 157,853 | 282,627.00 | 10,076 |
| Washington..... | 227,296 | 103 | 227,399 | 628,582.50 | 62,720 |
| West Virginia.. | 172,198 | 1,577 | 173,775 | 353,886.26 | 1,521 |
| Wisconsin..... | 298,825 | 709 | 299,534 | 429,371.65 | 89,317 |
| Wyoming..... | 25,418 | 932 | 26,350 | 149,419.00 | 7,510 |
| Alaska..... | 11,571 | 289 | 11,860 | 27,824.00 | 2,520 |
| D. C. ..... | ..... | ..... | ..... | ..... | 4,961 |
| Hawaii ..... | ..... | ..... | ..... | ..... | 76 |
| Total..... | 7,847,922 | 76,830 | 7,924,822 | $14,464,478.31 | 1,260,810 |

| | |
|---|---|
| Hunting License fees..... | $14,464,478.31 |
| Other fees paid by Hunters..... | 160,000.00 |
| Migratory Bird Hunting Stamps..... | 1,260,810.00 |
| Excise tax on sporting arms and ammunition reflected in consumer price..... | 5,535,773.25 |
| Retail price sporting arms and ammunition excluding tax..... | 70,000,000.00 |
| Hunting clothing, boots, blankets, etc. ..... | 35,000,000.00 |
| Boats, motors, trailers, etc. ..... | 1,500,000.00 |
| Meals, lodging and laundry, etc. ..... | 15,000,000.00 |
| Gas, oil, transportation, etc. ..... | 15,000,000.00 |
| Club caretakers and Guide service..... | 2,000,000.00 |
| Club and Lodge improvements and maintenance..... | 10,000,000.00 |
| Hunting dogs purchased..... | 2,000,000.00 |
| Feed, care and training of hunting dogs..... | 20,000,000.00 |
| Total..... | $191,911,061.56 |

Total paid License Holders in the United States, Fiscal Year 1941..... 7,912,000
This number covers individual purchasers excluding Alaska.

Relative Standing of States on Number of Hunting Licenses Sold

| | | |
|---|---|---|
| 1. | Michigan..... | 718,281 |
| 2. | Pennsylvania..... | 678,688 |
| 3. | New York..... | 568,675 |
| 4. | Ohio..... | 542,674 |
| 5. | Indiana..... | 386,164 |
| 6. | Minnesota..... | 354,892 |
| 7. | Illinois ..... | 326,019 |
| 8. | Wisconsin..... | 299,534 |
| 9. | California..... | 285,123 |
| 10. | Washington..... | 227,399 |

# STRANGE BURIAL GROUNDS

By JOHN DITTMAR*

Photo by the Author

Throughout Penn's Woods, in deep forests, on mountain-sides, ridges, and in valleys, Indian graves have been found. Many of these heroes fought for their freedoms and what they figured were their rights. Many died and were buried where they had fallen, their graves marked, sometimes, by a simple stone and left as sacred burial grounds.

Wars, too, have caused military cemeteries to be dotted throughout our nation. Many of our heroes' graves have been destroyed through lack of care. Some probably covered over by new roads, changes in river beds, the building of towns and cities over sacred battlefields, etc.

What about the graves of our "wildlife"? We have dug up bones of huge animals, probably dating back to the Stone Age. On down through these ages wild creatures have died natural deaths, or have been wounded by the hunter and left to die in agony. Many were killed for food by predators. Skeletons have been found in strange places.

During the winter of 1941-42 some woodsmen were cutting a tract of timber near the town of Alum Bank in Bedford County. A large, old, stately white oak, about 3½ feet in diameter and some 60 feet high, was felled by these men; a solid log was taken and the branches left lying to be used for firewood, or for Mother Nature to take care of, as we often see throughout our Commonwealth.

Sometime in February, or early March, a heavy snow lay on the ground. Irwin Claycomb, Osterburg, R. D., Pa., and his two sons needed some firewood. They came upon this massive white oak and trimmed and sawed her limbs into pieces to haul to their woodhouse. In one large limb, about 1½ feet in diameter, they noticed a squirrel hole. Throughout many years squirrels used this limb for a home and when in danger would run for this hole. Perhaps hundreds of the bushy-tails were killed from this tree, many wounded, others getting in between shots.

Sometime ago the boys, and Mr. Claycomb, were passing by this old landmark and there, on a heap, they noticed a pile of skulls and many small bones. They examined them and, their curiosity aroused, they counted the skulls and found forty-nine. This naturally would be something to talk about. Rumors flew right and left. They told it to friends, friends told it to their friends, etc., etc. "Surely someone was wrong. Imagine forty-nine skulls found in a limb of an old tree."

I told this story to Mr. Wm. J. Davis, Field Division Supervisor, to Mr. J. N. Morton, Chief of the Division of Land Management. They shook their heads to the contrary and advised me to make a thorough check. You know what happens when a rumor starts; it gains volume in figures and sometimes upsets a whole community.

I made several trips to see Mr. Claycomb and with me on June 6th was Roland F. Turley, Game Protector, Land Management, of Martinsburg. We found Mr. Claycomb, he told us the story, he produced the skulls, we took pictures and sent them to Mr. Leo A. Luttringer, Jr., Editor of the GAME NEWS. Were the skulls squirrels or what? Perhaps some future issue of Game News will tell us.—John D. Dittmar, Game Protector, Bedford County.

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Archers in New Mexico were assigned a special area in which to hunt deer, either sex, during the period from November 1 to November 9 under special permit.

The swordfish carries his identification mark where any one may see it—a long sharp-edged "sword" nearly half as long as the fish itself.

Woodpeckers seldom injure trees, but destroy injurious tree insects.

Very few of us remember of a dinner we really enjoyed unless nuts were a part of it. Always invite a few to make your dinner a success.

The lives of truest heroism are those in which there are no great deeds to look back upon. It is the little things well done that go to make up a successful and truly good life.—Theodore Roosevelt.

The fellow who bends over backwards to please his wife is obviously spineless, says a friend.

The night-hawk is often called the bull-bat; it is neither a hawk nor a bat.

The Indiana Division of Fish and Game received approval to use a portion of its funds for a project designed to improve wildlife habitat conditions throughout the State.

"Private Purdle just can't resist the urge when hunting season comes!"

# What To Feed Birds In Winter

So often we have heard, "A bird in the hand is worth two in the bush"; a saying that well suits the hunting season. But later when the hunter has gone, and the cold weather sets in, how well does this saying fit? If the two birds in the bush find food this winter they will be worth a whole family of birds in a next year's nest.

What care do you as a home owner give to the selection of shrubbery that will shelter, nest, and most important, feed the winter birds? What thought has your school board given to this question? What information have you as a teacher passed on to possible home owners? You in turn might well ask, "What thought has been given to this question by the Bureau of Parks"? In the past the answer to this last question might well be on the negative side, but from now on the answer will be different. For in the planning and planting of shrubs and trees along the new highway through Schenley Park consideration was given to this very question.

If neglected, the well manicured lawn or cultivated field will soon be covered with high grass, then weeds, berry bushes, and finally the familiar Elderberry, Locust, Hawthorn and Sumac. Wild Black Cherry trees soon appear and these thickets will attract all kinds of birds. This is not a suggestion that lawns be neglected, but is rather a suggestion to set aside such areas where possible to grow wild.

During the winter months Downy and Hairy Woodpeckers, Chickadees, Nuthatches, Tufted Titmice, Cardinals, and others may be seen pecking away at the familiar Sumac cones. Many nisects hibernate inside of that sticky, hairy seer mass and those birds with bills that are too weak to crack the seeds soon find such insects and eggs. The European Starling was quick to find the sumac and substitute it for similar foods back in England. Our garage mechanic does not like the English sparrows around his feeding station but will not kill them because he says, "They take bugs off the rose bushes."

Goldenrod, Teasel, Thistle, Yarrow, Queen Annes Lace, Evening Primrose and many others are passed unnoticed by the casual observer during the winter months. The dead stalks reflect little of their former beauty. But the Goldfinch, that many think has gone south because they miss the familiar gold and black color of the male, finds these foods easily. Don't you ever wonder why the Juncos, Tree Sparrows, Winter Wrens and others leave their summer homes farther north to peck around those old weeds in the garden? Although it is of prime importance to encourage these "wilderness" areas either by planting or by allowing nature to take over, there are times during he extreme cold and heavy snow of our winter that these native foods must be supplanted by a handout of scratch feed, sunflower seed, peanuts and suet. With the establishment of bird sanctuaries in the parks the numbers of birds have increased in some cases beyond the supply of natural foods and shelter. In the near future we will print a list of native and cultivated plants that will furnish shelter and food to many kinds of birds. Do you know of any plants that are inexpensive, perhaps have pretty flowers, and above all supply fruits that you know birds will eat? Any information on such plants that you have will gladly be accepted and added to the list.—From the Nature Education Staff, Bureau of Parks, Pittsburgh, Pa.

## BOOK REVIEWS

**The Identification of Trees and Shrubs**—By F. D. Makins: This book is a novel attempt to bring under one cover and at a popular price an easy guide to all the native and exotic species grown in the British Isles. The author has had a long experience as a botanist and professional forester, and is himself an amateur cultivator of trees and shrubs. He has come to the conclusion after several experiments that the easiest method of identification is by accurate diagrams. There are 2 500 of these, mostly grouped accordingly to the shape and arrangement of the leaves—a feature which any one can pick out without the slightest knowledge of botany—and to them is prefixed a short and simple key, which will save the beginner the trouble of hunting through the whole series in order to find the plant he wants. All the diagrams are clearly labelled, and are followed by short descriptions covering 1,732 species belonging to 552 different genera. At the end is a complete index of popular and botanical names. With every copy a durable book-marker is supplied; the sides are graduated in inches for measuring specimens, and the marker also shows a key to the abbreviations and floral formulae used in the book. The book will be indispensable to every one engaged in this fascinating branch of horticulture. Published by J. M. Dent & Sons Limited, London; price unknown.

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A young couple who run the radio full blast from the time they arise until the light is out at night went away for a visit last week and the family downstairs had to beat on the dishpan before they could get the baby to sleep.

# BETWEEN SEASON CARE

By PAUL P. PRUGH

Photo by the author

The 'Cooners and their 1941 catch.

Black Ace Old Bill

OUR guns are cleaned, oiled, and put away in their respective cases. Our hunting clothes hung away in the closet or packed in moth balls in the trunk for the hunting season is but a memory for another year. But what about old Jack the faithful hound, and Queen that gallant setter; are they too put away to be half forgotten until the hunting fever strikes again, chained to their barrel or box, prisoners for the long months ahead? That will all depend upon their master, in whose care their trust is placed.

There are two types of hunters, two types of sportsmen, if the one may be called such. One is the hunter who hunts for game, the meat hunter; the other, the one who hunts for sport, for the love of the chase, whether his game pockets are filled or not. These two types of hunters represent in most instances two types of dog men.

The first type, at the close of the season, ties his dog to his kennel with maybe little or no bedding to protect him from the winter winds, feeds him when he thinks of it, or maybe his wife feeds him, gives him fresh water now and then, and lets it go at that until the next season rolls around, when he goes to the butcher shop gets him some bones and begins once again to think of his hunting companion.

The second type cares for his dog as diligently out of season as in season, feeding him regularly, keeping fresh water before him, a warm dry bed in winter, a shady spot in summer, and exercising him frequently. In other words, caring for him as this faithful friend should be cared for during his idle months.

The first type hunter should not have the privilege of owning a dog—in fact, he should not have the privilege of hunting, but that is something we cannot govern.

For the man who cares I would like to mention a few of the cares your faithful hunting companion should receive at all times.

Starting with his home or kennel: Whenever possible have a yard or wire enclosure for him, however small it may be, that he may move about freely and not be chained like a prisoner to a ball and chain. If you are unable to have a run for him the next best thing is a wire stretched from his house to a convenient tree or post for his chain to slide on, thus giving him a measure of freedom. In the winter months keep his house well filled with clean, dry straw and hang a sack or old rug over the entrance to protect him from the wintry blasts. Better still if you have an out building suitable, put his box inside, thus giving him double protection from the weather. In warm weather he will enjoy sleeping on the bare floor of his kennel rather than on litter as it is cooler and much more sanitary, less susceptible to fleas and other vermin. See that he has a shady spot in which to lie, protected from the summer sun.

His feeding should consist of a light meal in the morning, a larger feed at night, not quite as much in summer as in winter, and he should have fresh water at least once a day in winter, and twice or more in warm weather.

Unless confined in a fairly large enclosure where he may romp and play he should be exercised at least twice a week.

A frequent brushing will make him more comfortable, especially in warm weather, and improve the appearance of his coat.

In short, give this noble hunter the care he deserves at all times. In other words treat him as you would be treated were you in his place, and he will doubly repay you on the hunting grounds.

There is nothing raises my ire more quickly than to see a faithful hunter forgotten and neglected when the season is past.

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In response to our request for records of big game animals set forth on page 32 of the December issue we have received the following. Measurments: Length on outside curve, 22½"; Circumference of main beam 4½"; Circumference of burr, 6"; Greatest spread, 21½"; Height, 12½" Number of points on each horn: Right, 4; Left, 4; Locality where killed, Warren County, near Tidioute; Date killed, December, 1935; By whom killed, H. E. Sterling, R.D. #4, Johnstown, Pa. Remarks: Very large deer. Had a third horn exactly between main beams. This horn is about one inch long. Weight 214 pounds hog dressed.

---

A girl's voice was heard in a bomb shelter: "Get your dirty hand off my knee. No, not you—YOU!"

Central Pa. Rifle League shooting in competition at annual picnic Hunters & Anglers Sportsmen's Association, Harrisburg, Pa., June 21st.

Photo by Bill Douglass

# THE CANINE CORNER

By EVAN C. STINEMAN

"DEAR EV:

LET us look over a few suggestions for checking our dog's wellbeing now that training season is in. Unless our hounds and bird dogs are in the pink they will not and cannot give us their best in following their quarry. After the summer lay-up, with very little exercise of the field variety, the dog is naturally soft and probably on the fatty side. Examine his pads—very likely you will either find them soft or dry and cracked. There are several preparations on the market but a home remedy of lanolin sheep wool fat for the hard and dry pads, and a solution of tanic acid for the soft pads will prove equally satisfactory.

"See if the nails are too long and if so clip them to avoid their being torn off in the brush. A little care in this particular may save your hunter from being laid up for several weeks with a torn pad. Just at this time of the year the pollen from weeds and grass is filling the air, especially close to the ground where your dog is in constant contact with the brush. Unless his eyes are washed out with say a 2% solution of Boric Acid with an occasional few drops of healing 10% Argyrol after an exercise period, you are courting eye infection, commonly called brush eye, resulting in blindness or at the best a lay-up of several weeks.

"It will be surprising how little bother and how much of a habit it becomes if you will keep your bottle of eye wash and Argyrol at your dog's kennel with a bit of cotton handy. Merely dip the cotton in the solution and squeeze the liquid into the dog's eyes. You will find your dog look forward to this eye wash each time he comes in from a run—you need only get a bit of this itchy, annoying pollen in your own eyes to discover how uncomfortable it can be for your dog.

"Now let's not start in the woods this year with a dog loaded with stomach parasites and have the most important member of your party handicapped. Some men spend small fortunes in guns and other paraphernalia and will not or do not think of spending the price of a license to have their best piece of hunting equipment checked for worms by their local veterinarian.

"There are four types of worms prevalent in our Pennsylvania sporting dogs, round worm, tape worm, hook worm and whip worm. The most common in puppies is the round worm, a white or yellowish color, wiry in texture and growing from two to eight inches in length.

"The tape worm is a long flat worm often growing to a length of 28 inches. The tape worms, unlike other worms, is carried from one host to another through the medium of a third host, such as insects and rabbits. A dog may harbor from one to 200 heads of tape worm. The hook worm is equipped with a pincer like mouth and burries its hooks and remains fast to the membrane of the intestinal tract. The whip worm, probably the hardest to eradicate, attacks the caecum, causing a highly nervous state in the host.

"Caution should be used at all times in the use of worm medicines. Consult your veterinarian first. Never, never, never should a sick dog be wormed. It is an established fact that more dogs die from the effects of worm medicine carelessly given than die from worms. Your best and cheapest bet is to take a specimen of the animal's stool to your vet. for examination under a microscope to determine the type of parasite your dog is infected with and let him prescribe the cure."—Doctor H. B. Prothero.

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The other day we received a photograph depicting one William T. Bingham, 68 retired mail carrier of Slippery Rock, feeding a squirrel. Upon close observation we noted that the squirrel was mounted and called the contributor's attention to the fact that we preferred not to run pictures of mounted specimens. In reply to that letter our contributor graciously came back at us with the following:

"Your eyesight is better than my amateur photography, but there is nothing "phoney" in the story of Mr. Bingham. Many of his squirrels and birds come closer than the one illustrated. But with me along, we couldn't somehow wangle one between the camera and him. They would either duck up too high or off range. He said we would have done much better had the day been snowy. Hence the "posed" picture, to save hours of time.

"I ran the photographs in my newspapers, for after all it is the story of an old man doing a good work—walking ten miles a day, building along his route 40 feeding tables and 14 shelters—and buying most of the feed with his own money.

Appreciating the logic, fairness, and good humor expressed in his letter, we decided to publish the photograph and the entire account.

William T. Bingham, 68 years old, retired mail carrier feeding game. See write-up opposite.

Photo by Geo. A. Smith

**Portion of decoration of Southern Lancaster County's Farmer-Sportsmen's Banquet. The club is very active and among other things has established 35 game refuges ranging in size from ¼ to 5 acres. It also furnishes farmers with safety zone posters.**

# SAFETY FIRST

(Continued from Page 11)

but from using firearms a lot and finally coming to appreciate just how dangerous they are. The Sporting Arms and Ammunition Manufacturers Institute does not fully agree with me on this and they have gotten up a list of "Thou Shalt Not's" which I'll quote here.

**Gun Safety in the Field**

1. Treat every gun with the respect due a loaded gun. This is the cardinal rule of gun safety.

2. Carry only empty guns, taken down or with action open into your car, camp and home.

3. Always be sure the barrel and action are clear of obstructions.

4. Always carry your gun so that you can control the direction of the muzzle.

5. Be sure of your target before you shoot.

6. Never point your gun at anything you do not intend to kill.

7. Never leave your gun unattended unless you unload it first.

8. Never climb a tree or fence with a loaded gun.

9. Never shoot a bullet at a flat hard surface or the surface of water.

10. Do not mix gunpowder and alcohol.

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# A RICH HERITAGE

(Continued from Page

20,187.2 acres, acquired during the 1938-39 fiscal year. Federal Aid in Wildlife Restoration funds then became avaliable during the 1939-40 fiscal year, and the land purchase program was again stimulated. This is indicated by the acreages acquired during the three fiscal years ending May 31, 1942.

The present unfortunate war with the axis powers is certain to have its effect on the acquisition of lands, not only because a reduction in the sale of hunting licenses can be expected, but also since Federal appropriations for other than war needs are being cut. The appropriation for the Federal Aid in Wildlife Restoration program may be much below the $2,750,000 of last year, and Pennsylvania's share will, of course, be cut proportionately. This means that the Commission may find it necessary to curtail its land purchase program during the next few years.

The opinion is rather general that sportsmen should acquire at least one million acres of State Game Lands. A little more than 700,000 acres were acquired in 22 years, or a general average of 31,832 acres per year. Should this average be maintained, the million acre mark could be reached in another ten years. However, on the basis of the average acquired during the last ten years, i. e., 38,016 acres, only eight years would be required. Whether or not such an ambition is ultimately realized depends to a large extent on the availability of funds and the determination of sportsmen to accomplish it.

The major portions of State Game Lands are open to public hunting, only 9% of the acreage being set apart as wildlife refuges. Sport and recreation are furnished for thousands of licensed hunters who annually secure many thousands of dollars worth of game from them. These lands are expected to be maintained for sportsmen's use for all time, and represent an investment the future value of which cannot be fully or even satisfactorily given in terms of dollars and cents. They not only provide sport for present and future generations of hunters, but provide public fishing waters, protect water-sheds and will be a growing source of revenues for the Game Fund from the sale of timber and other forest resources. It is reasonable to presume that such revenues will sooner or later equal the purchase price of the lands. Their acquisition was wise, an achievement of pride, and continuation of the purchase program until a million acres or more are secured appears to be sound economy.

# WOULD YOU STARVE?

(Continued from Page 25)

ing salt when nearly done. Carefully skim off the scum which rises while simmering.

Drain the rice, add two tablespoons of butter or bacon drippings, salt, pepper and paprika to taste. If desired, one or two small wild onions may also be used for seasoning. When the milkweed is tender, drain, add the tomatoes and rice. Allow to simmer over a slow fire for a few minutes longer, then serve hot.

This, together with a dish of wild strawberries and a hot drink, will make a wholesome meal in itself, or if served with planked fish, will be particularly appetizing.

**Soup With Milkweed**

Boil beef or ham until it pulls away from the bone, together with milkweed pods, cut lengthwise into small pieces, several small wild onions, and a handful of rice, lima beans or barley. About an hour before serving, add a can of tomatoes, salt, pepper, and a little cayenne to taste.

**Fireweed Greens**

Boil the smaller, young leaves of fireweed, which have been carefully washed, until tender. Fry a few slices of bacon, diced. Drain the water from the greens; pour into the frying pan with the diced bacon and drippings. Beat two eggs and add. Allow to simmer for aobut five minutes, or until the egg has set.

**A Duck and Wapatoo Imu**

If duck is not available, use a leg of lamb or a chicken. Wrap the meat in large leaves, such as rhubarb or those of the arrowhead. Wash the arrowhead, or wapatoo, roots.

Dig a pit, somewhat longer and deeper than needed for the meat. Line this with round stones as large as your fist, and build a hot fire on them. Keep the fire burning hotly for two or three hours, adding another layer or two of stones and more fuel as needed. When the stones are white hot, scrape out the embers, line the pit with a thick layer of grass or leaves, set the leaf-wrapped meat in place and surround with the washed arrowhead roots and any other vegetables you may have. Cover with more leaves and grass, then a wet burlap sack and finally with warm earth from about the pit. After an hour, or two hours, depending on the size of the imu, the pit may be opened and the meal served hot.

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Jimmy Swanson, 15, was declared winner of the $25 War Bond offered by Sportsmen's Post of San Francisco, Cal., as a prize for the student of the California schools between the ages of 12 and 16 who, in a ten-word slogan, best expressed the idea of conservation of wildlife. The winning slogan offered by young Swanson was: 'Wildlife Conservation Insures Wildlife Preservation." Jimmy is a student at Tahoe Lake school, Tahoe Lake, California.

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The girls who used to put on makeup as if their fathers were painters now put it on as if their fathers were plasterers.

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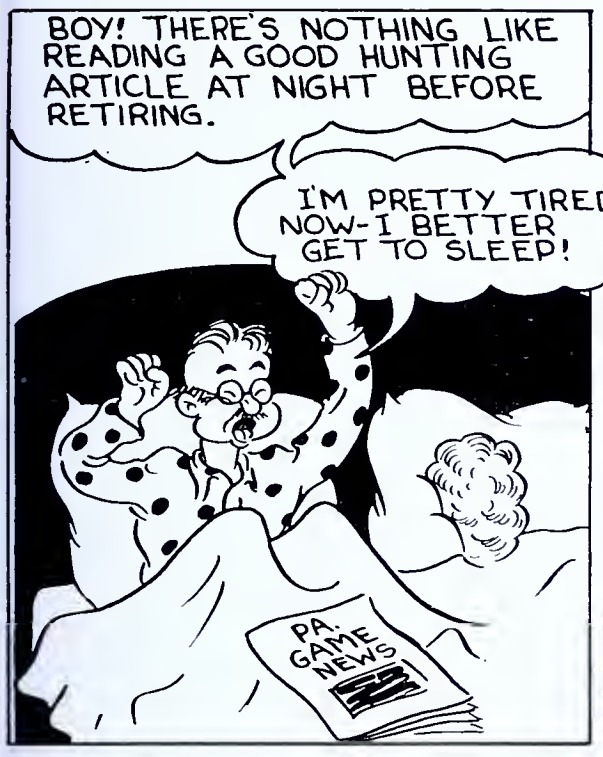
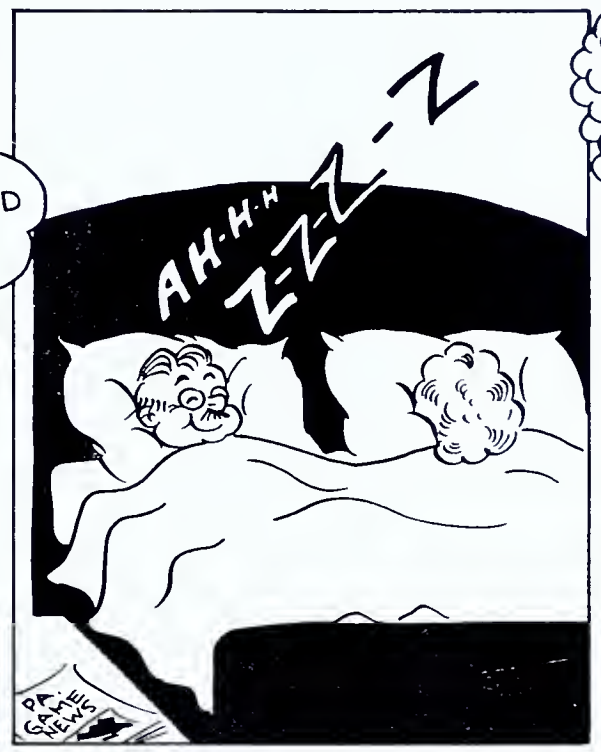
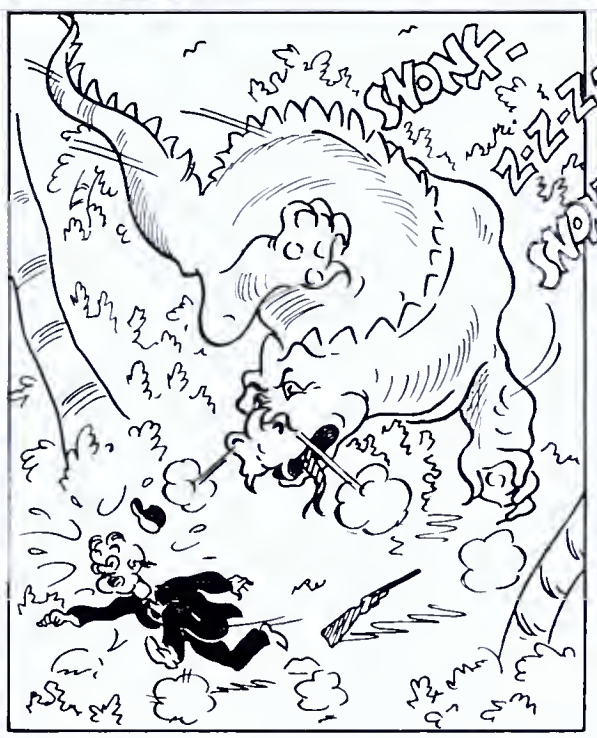
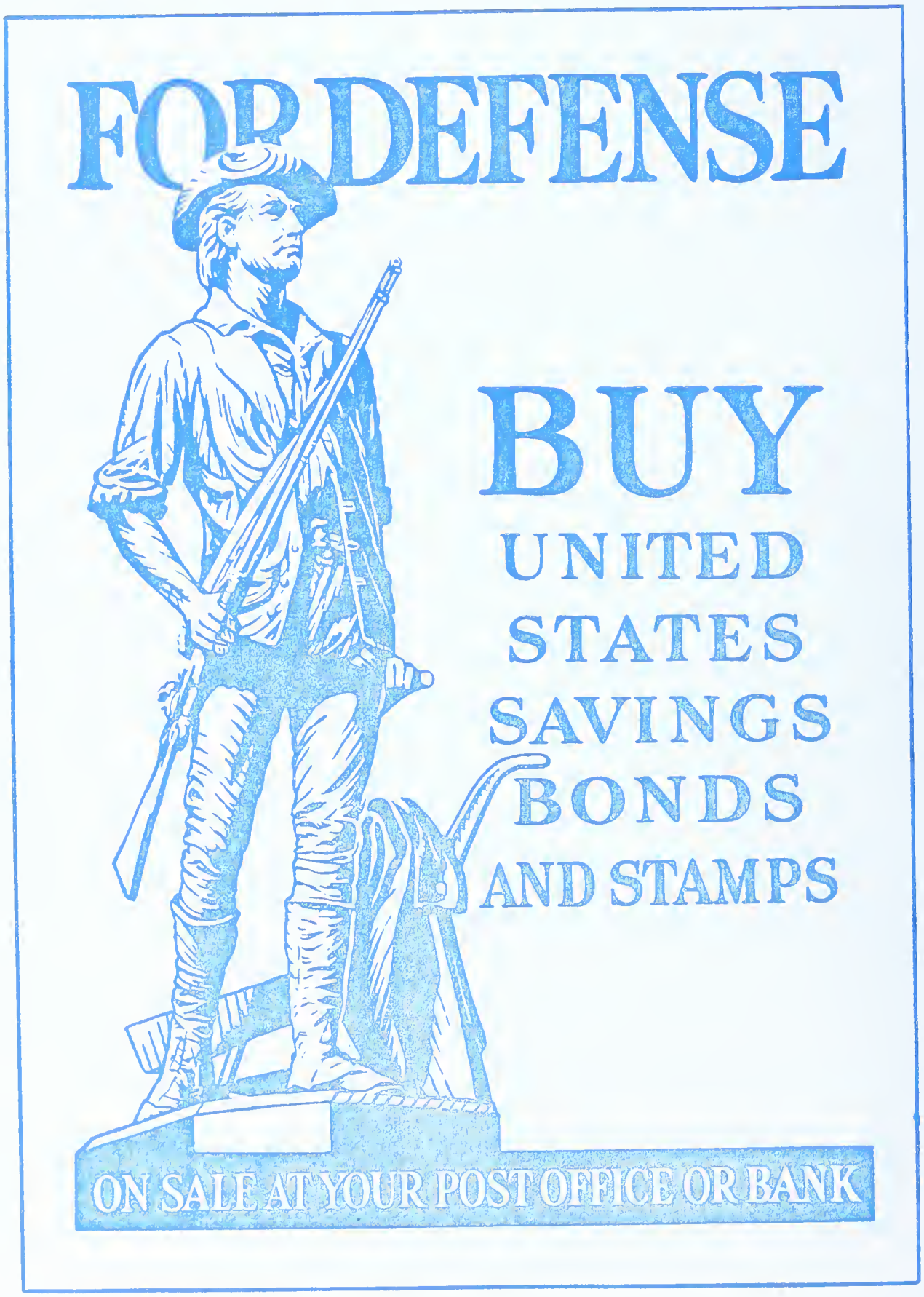
Seals take short "naps" by sinking to the bottom in shallow water and resting motionless.

THE FAMILY OF A. HUNTER, ESQUIRE—Episode No. 18



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# PENNSYLVANIA GAME NEWS

September 1942

Ten Cents

# PENNSYLVANIA GAME NEWS

PUBLISHED MONTHLY BY THE PENNSYLVANIA GAME COMMISSION, HARRISBURG, PENNSYLVANIA

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VOL. XIII, No. 6

# EDITORIAL

SEPTEMBER, 1942

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## KEEP OFF THE BENCH

The fact that the hunting licenses are now on sale reminds us that a lot of fellows who, due to having either violated the law or having been careless with firearms in the field, will "warm the bench" this season because they were denied the right to hunt. They cheated, or showed little or no regard for the lives of their companions, and so they must suffer the consequences. The sentences which have been meted out to them should likewise serve as a warning to others who think they can flaunt the game laws to the four winds or show a total disregard for human life.

As a result of illegal hunting last season 182 licenses were revoked. Furthermore, since that time the Commission has had 165 hearings on careless handling of firearms on its docket, 68 of which have already been conducted. There are remaining 97, but the Commission will hear each one of them as soon as possible, and its findings will determine the punishment, if any, of those involved. These hearings aren't just legal formalities—they add up to so many lives, limbs and eyesight lost, because someone was careless or didn't know how to handle a gun. As a result of such carelessness one out of every three persons so far involved in hunting accidents lost their licenses for one or more years, and were required to pay all medical fees or hospital expenses, or were heavily fined. In many cases they were also compelled to pay additional sums to the injured, or in the case of death, the family of the deceased.—Take Time To Be Safe!

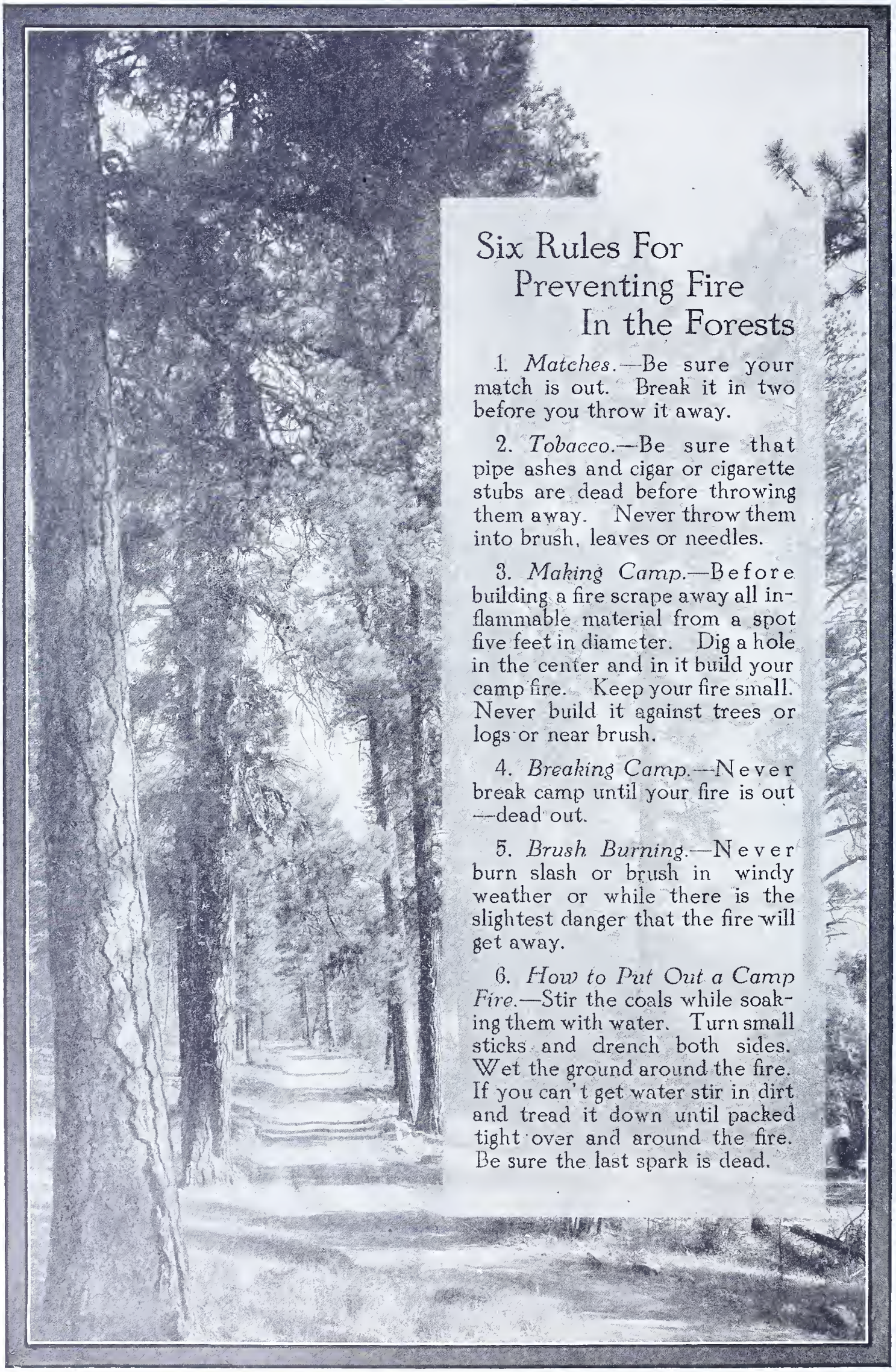
## HISTORIC

In the past several issues of GAME NEWS we carried the photographs and service records of every Commissioner, Executive and Assistant Executive affiliated with the Commission since its organization in 1896. Beginning in this number it is our plan to recall, also through a series of pictures, some of the early field conferences of the department. To the members of the organization this feature will no doubt prove very interesting, and some of the old timers especially will value it highly.

The first conference was held in Harrisburg in 1920, and the second at the Crystal Springs Club, Clearfield County, in 1923. Photos of both of these gatherings appear on pages 16 and 17 of this issue.

In keeping with these historical presentations we urge everyone, particularly old employees of the Commission and veteran sportsmen, to let us know about any old and valuable photographs of an historic nature—shots taken back in the pioneer days. Unfortunately few records were kept then, and almost no pictures.

BUY U. S. WAR BONDS AND STAMPS



# Six Rules For Preventing Fire In the Forests

1. *Matches.*—Be sure your match is out. Break it in two before you throw it away.

2. *Tobacco.*—Be sure that pipe ashes and cigar or cigarette stubs are dead before throwing them away. Never throw them into brush, leaves or needles.

3. *Making Camp.*—Before building a fire scrape away all inflammable material from a spot five feet in diameter. Dig a hole in the center and in it build your camp fire. Keep your fire small. Never build it against trees or logs or near brush.

4. *Breaking Camp.*—Never break camp until your fire is out—dead out.

5. *Brush Burning.*—Never burn slash or brush in windy weather or while there is the slightest danger that the fire will get away.

6. *How to Put Out a Camp Fire.*—Stir the coals while soaking them with water. Turn small sticks and drench both sides. Wet the ground around the fire. If you can't get water stir in dirt and tread it down until packed tight over and around the fire. Be sure the last spark is dead.

Courtesy American Forests.

Father and Son

# WHAT IS A SPORTSMAN?

## *By Rev. Darlington R. Kulp**

A FAMOUS sport's commentator once defined a sportsman as one who plays the game according to the rules governing the game. This definition is excellent as a starting point, but inadequate as a goal in itself.

It is expected of a man that he obey the law, that he respect the rights of others, and that neither by cunning nor by stealth does he take anything to which he is not entitled. And so to eliminate unfair practices, to give every man an equal chance, and to discipline those who are inconsiderate of the rights of others, laws and rulings of commissions are not only highly desirable but essential.

Sportsmen realize, however, that laws, no matter how good they may be, are not ends in themselves, but means for controlling human actions to accomplish desirable results. Conditions which govern outdoor sports are so variable that what may be a good law today may be quite the opposite tomorrow. Factors over which we have no control may so alter the environment and status of wildlife that existing laws may become destructive to the very things they are meant to control. Unforeseen expenditures, made necessary by the so-called "acts of God," may so deplete the game and fish funds that increased license fees are necessary to conserve the sports of field and stream. Creel and bag limits may be out of proportion to the productive capacity of our lands and waters. A real sportsman is conscious of these conditions and is on the alert to improve existing laws and rules so that the sports of the great outdoors may be conserved and better enjoyed by all who engage in them.

But experience has taught the sportsman that laws, even at their best, have serious and fatal limitations. This is specifically so in those fields of activity where the umpire and the referee cannot be present to supervise the game, and measure out penalties for infraction of the rules and unsportsmanlike conduct. For many people the charm of hunting, fishing, camping, canoeing, or treking through a wilderness area, is to be found in the assurance that a man can be alone—or with friends of his own choosing—and thus escape the constant supervision and conventional restraints of everyday life. In these zones of activities human energies are released which cannot be policed by law enforcing agencies, nor can they be controlled by the mandates of our wisest Solons.

For example, there is nothing in our statute books to prevent another fisherman from "blitzkrieging" through a stretch of water you are fishing, though you may have labored patiently and cautiously to create the situation essential for productive fishing. There are no legal devices preventing a man from shooting game ahead of your dog, or prohibiting another hunter from administering the "coup-de-grace" and taking possession of the deer you had mortally wounded.

It is evident that under such circumstances, and many more we could mention, other than external forces must be brought into play to control human conduct in the realm of outdoor sports. In civilian life we speak of one who is courteous and considerate of others' interests as a gentleman. Unfortunately, there are those who think that they can lay aside their good manners, as they do their Sunday clothes, when they go forth to hunt and fish. But a gentleman is always a gentleman, regardless of the clothing he may be wearing, or the station in life in which he may find himself. The wearing of outdoor accouterment does not give us the right to act like a cad, a bully, or a barbarian. A real sportsman is conscious of this truth, and he is just as much a gentleman when along the stream or in the field as he is when dressed in his very best and in the company of those whom he most respects. Conduct on the part of sportsmen befitting a gentleman will do more to win the respect and cooperation of the farmer, and others upon whom we depend for our sport, than any other effort we may put forth.

One worthy of the name of a sportsman is conservation-conscious and conservation-active. He realizes that in these days of more sportsmen, better roads, rapid transportation, better equipment and restricted ranges he has a job to perform if his sports are to survive. Therefore, he is as zealous to create and conserve that organic background necessary for the perpetuation of outdoor sports as he is to enjoy them himself.

He does not minimize the damage done by the meat-hunter and the law violator, but he realizes that they are not the worst culprits. The enemies he most fears are those persons responsible for the destruction of our streams by pollution, the blowing away of our farms, the erosion of our soil, the mis-use of our grazing lands, and the devastation of our forests. Above all, he fears those well-meaning but uninformed individuals who, in the name of social welfare and human betterment, promote projects that ultimately destroy the very background upon which life, and civilization itself, depends, not to mention the impairment of recreational values involved.

The only way in which these abuses can be corrected, and the despoilers of our natural resources halted, is through intelligent and dynamic organized effort. J. N. (Ding) Darling, that prince of sportsmen and champion of conservation, has made an observation that should fire our imaginations and move us to aggressive action: "We have lots of conservationists but little conserva-

*(Continued on page 26)*

* First Vice-President, Pa. Federation of Sportsmen's Clubs.

# Sizing up the Game Law

DIFFERENCES of opinion as to the right thing to do in order to properly observe the various provisions of the Pennsylvania Game Law have, we venture to bet, been the cause of more heated discussions around the hunter's campfire than any other grounds for argument among hunters. While it is believed that most provisions of our present Game Code are sufficiently clear to be readily understood, the wording in a few instances is such that the intent of the law is not at first readily apparent.

To clarify a few of these points and thus place both sportsman and officer on an equal basis by endeavoring to convey to everyone a true understanding of these provisions, we have undertaken to present herewith, in as plain a language as possible, the present views and policies of the Game Commission in interpreting the law. Space does not permit a discussion of all the controversial legal questions that may arise, so we shall try to select only those which occur most frequently and seem most-important.

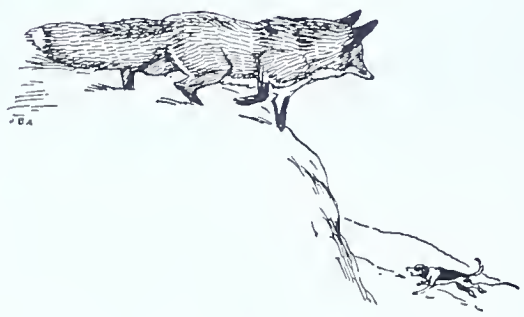
### Training Dogs On Small Game

It is not necessary to possess a hunter's license, or display the license tag, while training dogs on small game, because the intent to take or kill wild game is not present when one trains dogs. Of course, no shotgun or rifle may be carried, and no injury may be inflicted upon any wild birds or wild animals while engaged in such training.

Training Dogs on Small Game.

### Chasing Foxes With Dogs

When foxes are hunted for sport with dogs (except with organized packs of twenty or more, licensed at a cost of $50 a year), hunters are required to display hunter's license tags, whether they intend to capture the fox or not. Here the distinction should be drawn between hunting foxes for sport,



Chasing Foxes with Dogs.

which requires a license, and merely training dogs for future hunting, which does not.

### Hunting Groundhogs (Woodchucks)

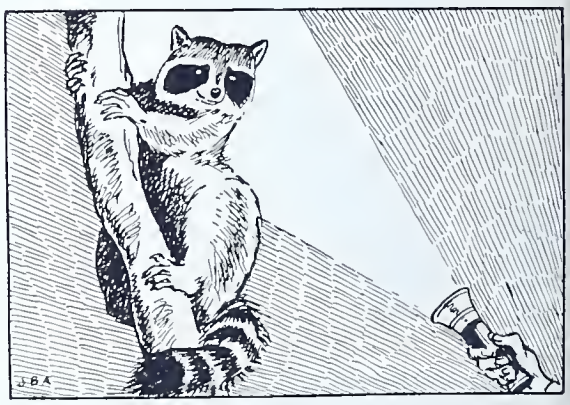
Although the groundhog or woodchuck season is July 1st to September 30th, Sundays excepted, the use of dogs to hunt these animals is not permitted from July 1st to August 19th, inclusive, because Section 719 of the Game Code forbids any owner or handler of a dog to permit it to "follow upon the track of any wild bird or wild animal" between April 1st and August 19th, the closed season for dog training. There is no objection to using a dog for groundhog hunting between August 20th and September 30th.

Hunting Groundhogs.

### Artificial Lights

Raccoons, opossums and skunks are the only wild animals that may legally be hunted through the use of artificial lights, and such lights must be of the type ordinarily carried in the hand or on the person, such as hand flashlights or lanterns. Headlights or other powerful lights from motor vehicles are strictly illegal for any hunting, even though they may be detached from the vehicle and transported on foot by the hunter, as these cannot properly be regarded as "hand lights." No wild birds or any kind, not even crows or starlings, may be killed by hunters using lights on the birds.

To intentionally cast the rays of a spotlight, headlight or other artificial light upon a deer, bear or elk, when there is a gun or other weapon capable of killing big game in the car or in the party, is illegal, under penalty of $100 upon each person concerned. The fine may be imposed even though no shooting occurs.

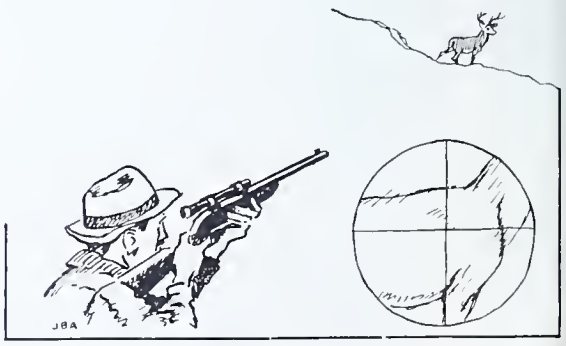


Artificial Lights.

### Telescope Sights

The use of a telescope sight on a rifle for big or small game hunting is entirely permissible. In fact, its use is recommended as a safety device, as it enables the hunter to more clearly determine the identity of his target before squeezing the trigger. This should at times prevent the shooting of human beings by mistake, and should also avoid killing illegal deer, as the hunter can get a better view of the head. The scope has many advantages from a safety standpoint; use it whenever possible and be sure of your target.

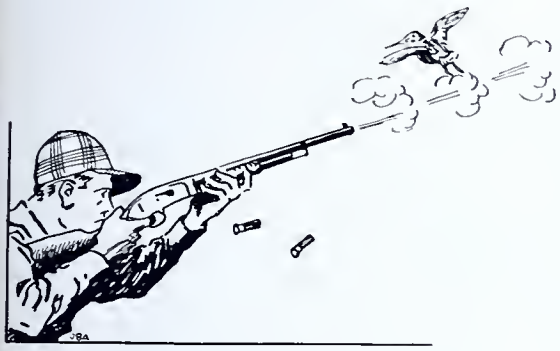
The only device specifically prohibited on a firearm for hunting is a silencer. No automatic guns may be used, regardless of what devices are attached.



Telescope Sights.

## By Charles Stambaugh

*NOTE.—In this Article, Mr. Stambaugh correctly reflects the present policies and legal interpretations of the Pennsylvania Game Commission.—Seth Gordon, Executive Director.*



**Three Shell Limit.**

### Three-Shell Limit

The three-shell limit on guns applies only to magazine or "pump" shotguns; never to rifles. Rifles are not limited to any capacity, and there is no objection to placing as many cartridges in a rifle as it will hold, regardless of what species of wildlife is being hunted. Rifles, however, are unlawful in waterfowl hunting. Pump shotguns are not restricted to three shells when used for deer or bear hunting, and, for this reason, the Game Law does not specifically require such guns to be plugged for small game hunting, so long as the gun when so used does not contain more than three shells in the magazine and chamber combined.

Under Federal regulations, all magazine shotguns must be plugged or otherwise restricted to a capacity of three shells when used to take woodcock wild ducks, geese or other migratory game birds in season. For this reason, also to avoid making the mistake of accidentally inserting too many shells in the shotgun, it is best that all pump guns of that type be plugged for three shells when used for Pennsylvania hunting.

### Hunting Rights Of Soldiers

Although some states apparently grant free hunting privileges to persons enrolled in the U. S. Army, Navy or Marine Corps, unfortunately the laws of Pennsylvania make no such provision, and the Game Commission is without legal authority to extend them this privilege. Men in the enrolled military service must therefore possess proper hunting licenses to enjoy this outdoor sport in Pennsylvania.

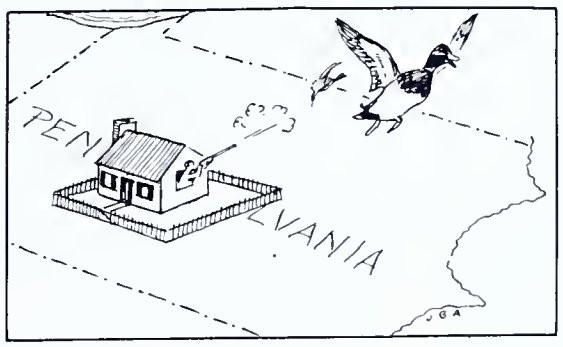
**Hunting Rights of Soldiers.**

There are, however, certain hunting advantages given to enlisted men. For instance, one in the armed forces who is a resident of this Commonwealth at the time he enters the service, does not lose his resident hunting rights by being absent from the State on military duty; he can always return and hunt on a resident license, unless he should elect to establish residence in another state or country. Our law further provides that a citizen enrolled in the U. S. Army, Navy, or Marine Corps, and officially stationed within this Commonwealth thirty or more days preceding application, is entitled to a resident hunter's license at a cost of $2, regardless of where his legal residence may be.

### Residence For Hunting Purposes

A citizen is entitled to a resident hunter's license after he has been a resident "in good faith" of Pennsylvania for sixty or more days, which period must immediately precede his application for license. For example, one cannot qualify for a resident license who resides in the State during May and June, moves to Maryland with his family on July 1st and returns on November 1st to apply for license.

Ownership of property in Pennsylvania does not entitle one to either resident or free hunting privileges on his own land while he actually lives in another state. To hunt without a license on his land, he is required to take up residence thereon, and engage regularly in the cultivation of the soil for either general farm crop, commercial produce, orchard or nursery purposes. Under those conditions, an owner or tenant may also hunt or trap without a license upon any lands connected with those upon which he resides (publicly-owned lands excepted), by first obtaining written consent of the adjacent owners or lessees.

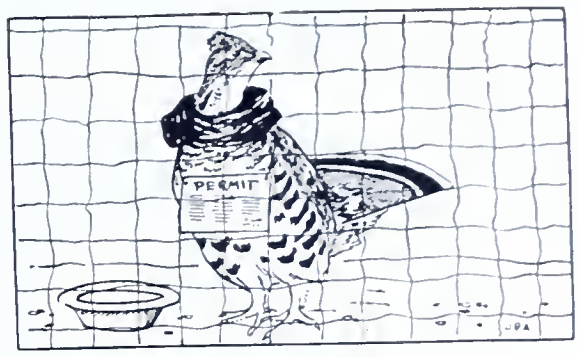



**Residence for Hunting Purposes.**

### Possessing Live Game Birds And Animals

No game birds or animals may be possessed alive in this State without a permit. Game legally acquired from outside the State, or purchased from a licensed game breeder in Pennsylvania, may be possessed, but not sold, by obtaining a live-game possession permit from the Field Division Supervisor of the area in which the applicant resides. Addresses of the respective Supervisors are given with every hunter's license and are shown on the inside cover of the GAME NEWS. These permits are free.

However, should one desire to possess game in captivity for breeding, with the intention of selling the increase or eggs produced, a Game Propagating Permit, issued by the Game Commission at Harrrisburg for a fee of $5 a year, must be obtained.




**Possessing Live Game Birds.**

Raccoons lawfully taken in season may be possessed alive by obtaining a permit, within five days after the season closes, through the Division Supervisor above mentioned. This permit is also issued without charge. No other game birds or animals captured alive in Pennsylvania may be retained.

### Camp Limit For Deer-Hunting Parties

Considerable confusion frequently results as to the number of deer to which a hunting party or group of individuals is entitled. To assist in clarifying this situation, we offer the following interpretation of the law:

(A). When a group of six or more hunters make their headquarters at a hotel, boarding house or private residence *occupied the year round,* any deer killed by other hunters also staying at the same headquarters should not count against the quota of six to which this party is entitled; but the other hunters must not, in any way, cooperate with this group while hunting deer.

(B). A body of hunters camping together at a private camp—one which is occupied only at intervals during the year for recreational purposes—may kill only six deer a season, regardless of how many more than six hunters are in the party or how they hunt, *so long as they all hunt from the same headquarters at one time.* Even though these hunters intend to hunt deer as individuals, the entire group at such private camp may not kill more than six deer during the season, as the Game Code makes it unlawful for any group of hunters *camping together* to kill or possess more than the camp limit. There can be no objection to two separate groups of six or more hunters each occupying the same camp *at separate periods during the season* and, by maintaining separate rosters, each

*(Continued on page 31)*

**Camp Limit for Deer Hunting Parties.**

# WHAT HAPPENS TO YOUR *Ammunition Tax?*

**Millions of dollars have been collected. Here's the up-to-the-minute story of what this money is doing for all of us. Every hunter should read this and approve**

**(Reprinted from the July 1942 issue of Field and Stream Magazine)**

by HAROLD TITUS

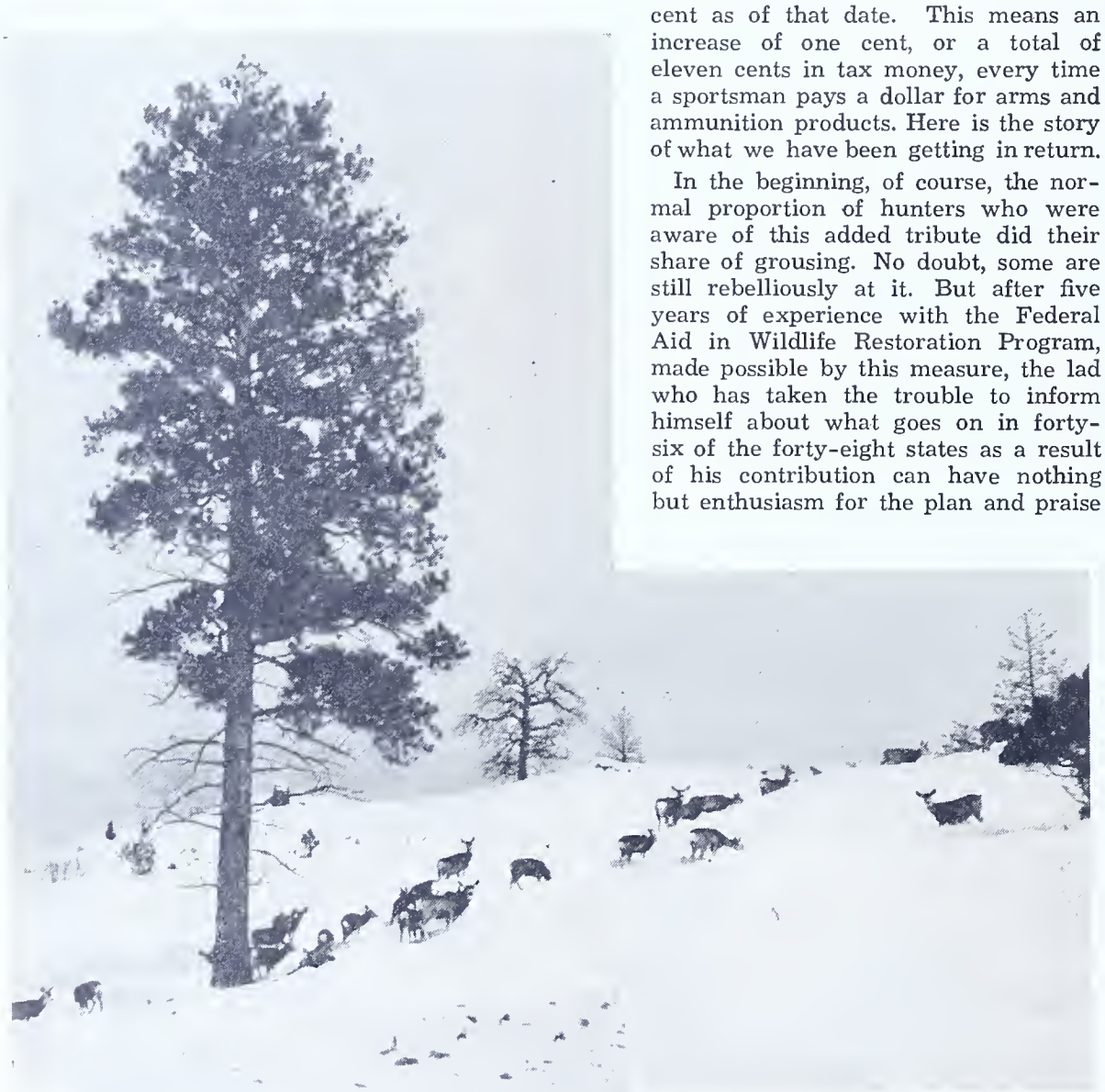
SINCE 1937, every American hunter who has laid out a dollar for sporting arms or ammunition has sent a dime rolling into a special fund, earmarked by the Pittman-Robertson Act of that year. Since 1932, there had been a 10 per cent Federal excise tax on sporting arms and ammunition, and the Pittman-Robertson Act nailed this money down for conservation. In fact, since July 1, 1940, this fund has been accumulating at the rate of 11 per cent, since all Federal excise taxes were increased by 10 per cent as of that date. This means an increase of one cent, or a total of eleven cents in tax money, every time a sportsman pays a dollar for arms and ammunition products. Here is the story of what we have been getting in return.

In the beginning, of course, the normal proportion of hunters who were aware of this added tribute did their share of grousing. No doubt, some are still rebelliously at it. But after five years of experience with the Federal Aid in Wildlife Restoration Program, made possible by this measure, the lad who has taken the trouble to inform himself about what goes on in forty-six of the forty-eight states as a result of his contribution can have nothing but enthusiasm for the plan and praise for the small group of stalwarts who saw the Pittman-Robertson Bill through its tortuous course. They are among the immortals of the conservation movement.

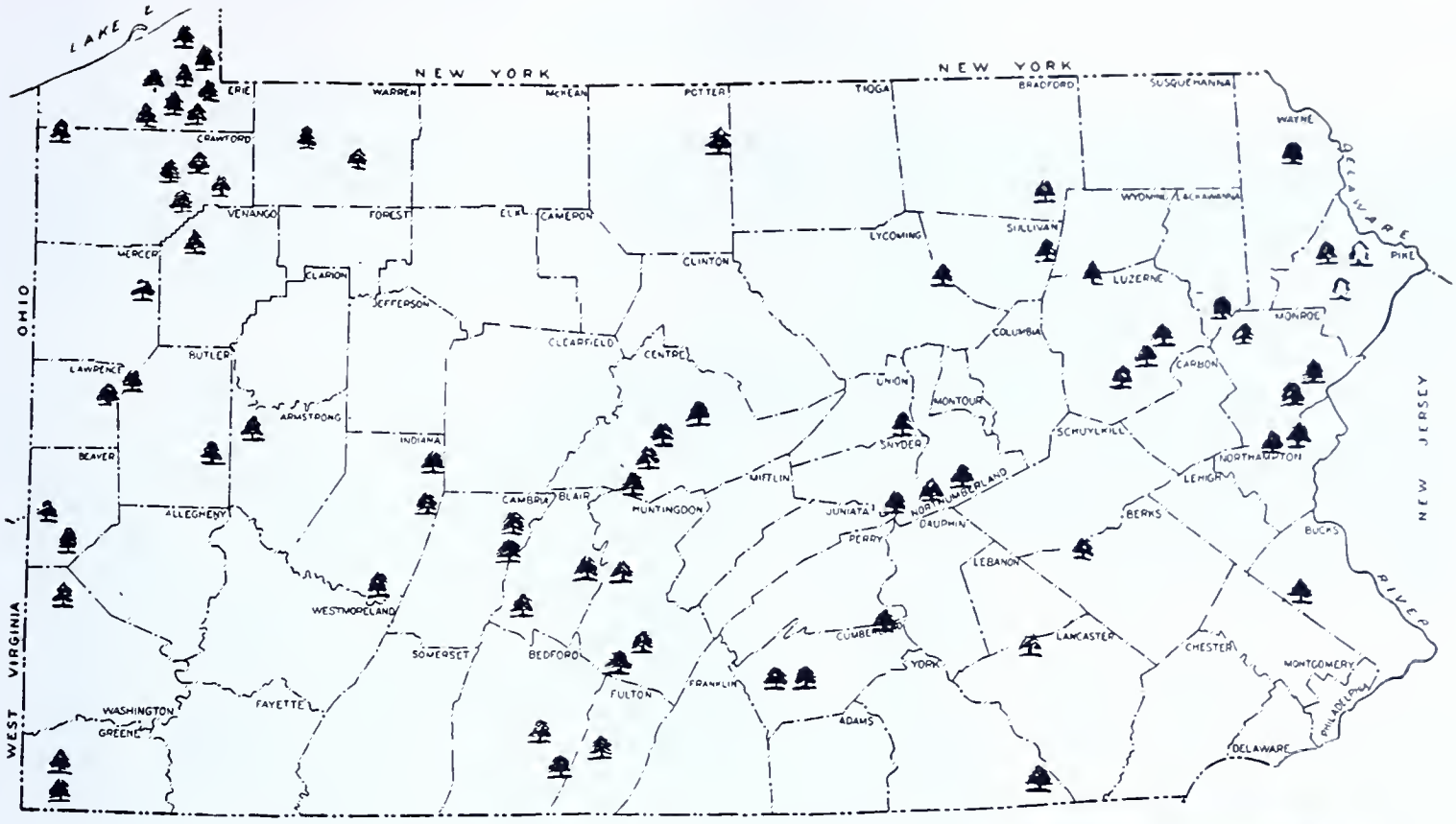
Tens of thousands of acres of land now belong to the public of the various states that would otherwise be in private hands and largely closed to hunters were it not for this Wildlife Restoration Program. Refuges, improved breeding areas and rejuvenated game ranges dot the country as a result of this specific tax. Research projects, without which there can be no decent game management, are being carried out in almost every state which has availed itself of the benefits of the act, and the great majority of them would never have been launched were it not for that shower of dimes which hunters send annually to the national treasury.

Up to December 31, 1941, a total of $1,824,878.08 had been allocated from Pittman-Robertson funds for research, as against $1,666,307.84 for actual development work and $1,339,461.77 for land acquisition. This is indeed a healthy beginning, since as time goes on and the individual research projects are completed it is expected they will be succeeded by development projects calculated to make the results of the research available to sportsmen in the tangible form of more game birds and animals. Since these co-operative research projects are being carried out on the home shooting grounds of sportsmen in forty-six different states, the transition from the experimental to the production stage will represent a normal healthy development of the general plan.

And here's another thing: with no one even guessing what's ahead of us in a war-torn world it may very well be that this Pittman-Robertson money will develop into the one hope of keeping the machinery of conservation turning over in many states until conflict ends and we settle down once more to the even keel of peaceful liv-



Research in Colorado turned up valuable information that helped solve the problem of over-browsing by mule deer.




**Pennsylvania used most of her share for acquiring game lands, and leads the states in total area. Trees indicate area purchased in various counties.**

ing. Although countless local enterprises are due to be stymied by war costs, this national wildlife restoration program is going to be carried on.

It may be smart to get the mechanics of this far-flung activity firmly in mind before taking a close look at what's been going on in some of the states. The program is administered by the U. S. Fish and Wildlife Service after Congress has appropriated specific amounts from the sums that have piled up. The Service does not direct the various jobs, understand. This is no paternalistic, dictated-by-Washington activity. All that Ira Gabrielson and his staff do is make sure that what a state elects to do falls within the provisions of the law and then see that the work is properly and efficiently carried out.

That item of appropriating funds should be marked well by sportsmen. For instance, a total of $2,750,000 was appropriated for distribution to the states for the year ending in June, 1942. That wasn't all the cash on hand. The bank balance piled up by the tax wasn't stripped to make such an amount available. A nice backlog for rainy days was left. But when appropriations for the year 1943 were up, the House whittled the available Pittman-Robertson outgo down to $1,250,000, or a shrinkage of more than one-half under the current expenditures.

As this is written, a roar is being heard in Congressional halls from indignant sportsmen, and by the time these lines reach print we will see how effective the protest proved to be.

The thing to keep in mind is this: all money in the fund is paid in by hunters and may be expended for hunters' benefits *only*. It is good sense to maintain a working balance, of course, but that is considerably different from hamstringing going projects when funds are available. Hamstringing is just what would result from any

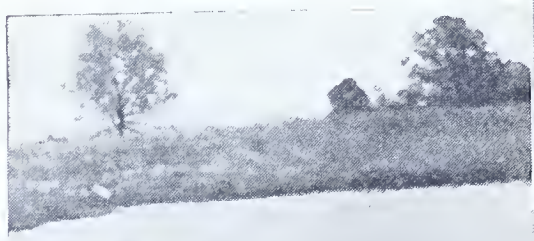
**Dr. Ira N. Gabrielson, Chief of the U. S. Fish and Wildlife Service, the man in charge of administering Pittman-Robertson funds and the recipient of the Field & Stream award for the outstanding conservation job of 1941.**

**Utah is plenty proud of its Ogden Bay duck-restoration program where formerly hundreds of thousands of ducks perished from botulism.**

Missouri faced a lack of natural water. Pittman-Robertson funds provided the answer. Artificial lakes were dug and water vegetation established. Now there are feeding grounds for waterfowl and fish.

such figure as was first proposed for next year. It may be superfluous to state that a Congressman is elected every two years and that the voice of organized sportsmen in any Congressional district can be effective, indeed. Democratic processes are inefficient and menaced only when too many of us are inclined to let George attend to our public interests.

The amount of Pittman-Robertson money a state may expect to have allotted to it depends on four conditions: The first is that state agencies admin-



ister game affairs. The second is that enabling legislation has been passed, authorizing the commonwealth to avail itself of the terms of the act and to ante 25 cents for every 75 cents which Federal authorities turn its way. The third item is that no monies raised within the state by sale of hunting licenses be diverted to any activity not directly bearing on game conservation.

If these provisions are not made, Wildlife Restoration funds simply are not available. When they are, then the amount that is allocated depends on the area involved and the number of hunting licenses sold.

As of today, Nevada and Georgia are the only states not benefiting from the program. Nevada has no state game department. Outdoor affairs remain in the hands of the counties, even after repeated attempts on the part of sportsmen there to centralize authority and responsibility. Taking a leaf from the book of their neighbors in Idaho, however, a movement to attain this end is shaping up.

Georgia has a state department. Its legislature in 1941 passed an enabling act, but Governor Talmadge saw fit to veto the measure, and until his mind or the state administration is changed Georgia will have to be just a spectator at conservation's biggest spectacle. And it *is* a big spectacle, too. This year, for instance, Michigan, at the head of the list, received $143,946, and even tiny Rhode Island got $1,958. Up through the fiscal year ending June 30, 1941, 557 projects had been approved, 208 had been completed and 60 or more were pending. The totals for the period just closing will be much larger because the program has only commenced to hit its stride.

So much for how things may be done. Now let's have a look at some of the things that have been done.

Pennsylvania, for instance, has proved to its own satisfaction and over a long period of years that its vast system of game-management areas is indispensable to happy hunting. And, like most other states, dough for the acquisition of more acres hadn't been any too easy to get. So Pennsylvania went sled-length on land purchases, and tops the list of land-buyers functioning under this particular form of Federal aid.

During the first year the Wildlife Restoration Program was in effect the Pennsylvania Game Commission sat on

the receiving end of over 70,000 acres of game lands. This was in about seventy parcels and nicely distributed among the game counties. Still more purchases are in prospect, and before they know it those Pennsylvania hunters will be finding elbow-room where they have been smothered by competition in the past.

In all land purchases the Fish and Wildlife Service acts in an advisory capacity, not only on location and character of the descriptions, but on price. A staff of land appraisers is maintained who use Federal Land Bank methods in determining values. With this agency collaborating with local authorities, the chances of bad buys or downright frauds are negligible. It must not be assumed that Pennsylvania has devoted its Pittman-Robertson cash to the purchase of raw land alone. Plenty of development work and pertinent research has been carried on, but land purchases are stressed here because they were the crying need and without Federal help could not possibly have been acquired.

Down in New Mexico and Texas the pronghorn antelope problem had been acute. This splendid game species had touched bottom but, by the early 'thirties, was staging an incredible comeback. However, the distribution was spotty, and thousands of acres of good antelope range hadn't felt the tread of those delicate hoofs in a generation or more.

New Mexico had rounded up, trapped and transported to unused range 486 head on its own. But that chore cost money, and the resources that the state had set aside for it were exhausted. Then came Federal aid, and the undertaking picked up and went to town. Texas, profiting by New Mexico's experience, drew approval for a similar project and instituted the use of airplanes for rounding up the widely scattered bands, herding them into net corrals to be held for crating and shipment. In three years of this activity, New Mexico has transplanted 889 individuals, and Texas has moved 1140 from old to new ranges. New Mexico still has 13,000 square miles of bang-up pronghorn range yet to be stocked, and Texas has at least equally as much.

The benefits of this activity are not confined to spreading antelope population and reducing gun pressure on individual bands, by any means. Before the trapped animals are installed in their padded crates for transportation to new homes, ear tags are attached so that subsequent drift can be precisely determined, weights are recorded and sex ratios and age groups learned. All these items are valuable by-products to be used in the future of antelope management, and perhaps may be as great a factor in pronghorn abundance in time to come as the actual restocking of empty habitat will prove to be.

Virginia conducted a wild-turkey census.

Utah is plenty proud of its Ogden Bay duck-restoration project which, the bet is, will save sundry millions of ducks from the ravages of botulism in the next decade. This was Project No. 1 under the Restoration Program because it was a going venture even before the Pittman-Robertson Bill became law. Utah and the old Bureau of Biological Survey had made a start in 1937, and the project was simply transferred to the new method of financing when this excise-tax fund became available.

The mouth of the Weber River, where it spreads thin over flats left by the recession of Great Salt Lake levels, had for long been a death trap for more ducks than most of us ever see in a year. No exact counts had been made, but estimates had it that from 300,000 up to 500,000 ducks perished there in a single season. By 1941, about fifteen miles of dykes had been built and over 5000 new acres of safe water made available for waterfowl. The area probably will be increased away beyond that.

Game administrators the country over, when they take their hair down, will admit that when seasons and limits are established they are mostly shooting in the dark. Every hunter knows that the object of restrictions on his days afield is to confine the kill to the annual increment, more or less, depending on whether ranges are under- or overstocked with breeders. But few hunters realize how little information those in charge of their game administration actually have on such basic factors.

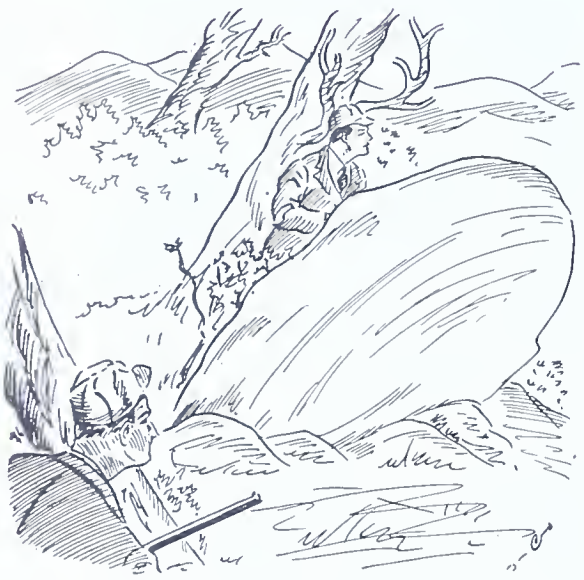
For long, Virginia had realized how woefully shy it was on information regarding its wild-turkey population. A producer of domestic turkeys who expected to stay in business and planned to carry over sufficient breeding stock for another year would be reckoned dumb indeed if he killed all the market would absorb at the moment, with no eye to the future. Virginia hadn't been doing quite that, of course; it had tried to be conservative in regulating the annual take, but that conservatism had been based on estimates only and, after all, estimates are first cousins to guesses and make a shaky foundation for management policy.

One of the first Pittman-Robertson projects that Virginia requested was a real inventory of its wild-turkey population. Two men in a trailer spent months in gobbler country, draining farmers of information, getting clubby with turkey hunters, checking and counter-checking what they were told and searching range for sign themselves. They did an amazing job of selling the big idea to hunters, and the record shows that out of five hundred interviewed only three finally refused to come clean with what they knew, which is another one of those priceless by-products of an undertaking. It means that those five hundred hunters are closer to their state's conservation set-up than they ever have been before; they are in it, a part of it, and that makes the spirit which moves mountains.

*(Continued on page 32)*

★ BUY U. S. WAR SAVINGS BONDS & STAMPS ★

# STOP! LOOK! LISTEN!



To look carefully enough to guarantee that a deer has no visible antlers, or antlers with at least one extra point to one horn, means that there is no possibility of mistaking a man for a deer.

"LOOK OUT BELOW!" — This warning coming from high up on the top pitch of a mountain side, broke loud and clear above the usual woodland medley of a December morn. The echo had scarcely died away before the clatter of rolling rocks, the crackle of dry brush, and the hurried hoof beats of many feet announced the immediate and direct approach of several deer, half dozen or more. Their course, once the first fast rush took them into heavy brush and beyond immediate danger, was along a descending deer trail passing within fifty feet of a hunter who was propped against a large rock oak, thirty-five Remington in hand, and thumb on safety button.

Closely crowding one another, passing alternately through brushy patches and intervening open spaces, eight deer, all large animals except two fawns closely flanking what was evidently their mother, they passed on, and down, and out of sight. The hunter's rifle was lowered, he eased to a more comfortable position, and his breathing and heart beat slowed down to normal. The silence, which had reigned above since the first warning cry, now gave way to the noise of crackling underbrush, and the hoodlum yelling and barking announced that the hunt was again under way.

"Hang it all," muttered the watcher under his breath," I saw horns on that baby bringing up the rear, but darned if I could see an extra joint. I thought by the way he hesitated a couple of times, and by the way he sneaked along, that he was a buck. That other one, behind the fawns, looked rather queer about his ears too."

This hunter was not a "greenhorn", nor was he lacking in power of observation. A forked-horn buck just has a way of holding his ears tightly against his small rack, so as to make it very difficult often to see that extra point which classes him as legal. Especially is this so if the light is poor, or if he is not seen at exactly the right angle.

The Pennsylvania Game Code takes no cognizance of the so-called "spike" buck as such. The "anterless deer," and the deer with "more than one point to one antler" loom large in the regulations affecting large game hunting. However, this neglected, intervening stage of "buckhood", usually obtained in the second year of life, is one which has a most important place in the hunting scheme. It is the safety valve, the *stop, look* and *listen* signal which annually saves human lives—many lives.

To look carefully enough, and to see surely enough, to guarantee that a deer either has no visible antlers, or antlers with at least one extra point to one horn, means that there is no possibility of mistaking a man for a deer. No one who will scrupulously and unswervingly observe this legally required and

One other most important safety measure . . . the wearing of sufficient amounts of red during all hunting seasons.

necessary precaution will ever experience the regrets which otherwise might be his. No movement or commotion in any thicket does more to the careful hunter than to put him on the alert. He takes nothing for granted; he never believes, or thinks, or guesses; he makes sure beyond possibility of doubt, and then only does he act.

It should be emphasized here that one other most important safety measure is now axiomatic and beyond all point of argument. The proper placing and wearing of sufficient amounts of red in apparel worn during all hunting seasons. This applies alike to all hunters, woods workers, and even to the person incidentally in any woodland area, during a hunting season, for the purpose of gathering greens or securing a Christmas tree. By precept and example the Game Commission has long emphasized this life saving measure, and has accurate statistics covering the experience of years to prove the point conclusively.

Getting back to antlers and their close scrutiny before attempting a shot, a complicating situation, which existed to a far greater degree some years ago, may still cause much embarrassment to a well meaning sportsperson.

Some thirty odd years ago, many species of wild game animals lost their most valuable natural food supply. The advent of the chestnut blight destroyed the sweet American chestnut, insofar as timber and nut crops were concerned, over almost all its natural range. Due to its great sprouting capacity, great clusters of sprouts were thrown up by the root systems surrounding the parent tree trunks. These saplings grew, branched, and in due time also died. As with the parent tree, the fungus infested bark peeled off, leaving the bare wood exposed, later to be whitened and case hardened by the sun. The wind, snow, and ice storms got in their work, and chestnut snags, looking like hat racks or deer racks, oftentimes resulted.

On an afternoon near mid December some years ago, I was following a favorite lone method of hunting. High on the winter side of a steep mountain side, feet clad in rubber, carefully stepping from stone to stone with the wind in my face. I slowly made my way. At short intervals I stopped and carefully scrutinized my surroundings, carefully inspecting the terrain above, below, and well ahead. After following this procedure for perhaps a half mile, I had looked below, ahead, and above, when for some reason—we will call it my sixth sense—I took a second look downward before starting ahead. To my amazement, right where I had looked previously, there stood a buck. He had risen from a clump of little hemlocks, sensing danger, but not knowing where or why.

His lordship stood in the absolute open, except from the knees down, and I remained absolutely motionless, except for my eyes, which focused now on his head. There I saw points, several of them, long and heavy prongs—what a rack! I noted that he was gazing ahead, and knowing that a deer cannot perceive any little motion at right angles

His lordship stood in the absolute open.

# By "Lesmoke"

Too dumbfounded on the instant to move, I stood in my tracks, while a cold sweat oozed from my forehead and trickled down my face.

to his line of vision, I slowly brought my rifle up and fired at his neck.

At the crack of the gun he dropped in his tracks, but even as he collapsed I saw something was amiss. Looking up, and beyond, I still saw those five points and the big rack —dead and broken weathered snags surrounding a chestnut stump.

Too dumfounded on the instant to move, I stood in my tracks, while a cold sweat oozed from my forehead and trickled down my face. What an odd quirk of fate to set itself on a well intentioned deer slayer! Well, I'm in for it, I reasoned; no use crying over spilled milk. So I reluctantly and sadly made my way to the deer. A close glimpse at the head turned my dejection into a feeling of great relief, for contrary to my expectation, some real points had been mingled with the false ones, and I gazed upon as pretty a set of very light colored forked horns as anyone might wish to see. Ever since that day I look beyond my deer. Somewhat similar experiences, with sometimes unhappy variations, have to my knowledge happened to other deer hunters.

It is unwise to conclude that a rack of antlers, showing long curved beams, necessarily carries with it the legally required extra point. I know of one mounted head, secured in the days when spike bucks were legal quarry for a hunter, which sports eighteen inch horns without a side point. A large buck, with beautiful and symmetrical beams some fourteen inches long, passed so close to me in open forest that I could not have missed seeing extra points had they been present. The number of illegally killed bucks, with large spikes, left lying in the woods to spoil, attest the fact that too many hunters place too much emphasis on first impressions.

I know of one mounted head, secured in the days when spike bucks were legal quarry, which sports eighteen inch horns without a side point.

Freak racks occur at times of course, and only an extraordinary turn of events, such as will be related, may result in the bagging of a legal buck which ordinarily would be passed up.

Four or five points to an antler may on a rare occasion exist on four or five inch long horns. Several years ago I was enroute from camp to a point on a mountain where deer frequently passed when routed from cover higher up. My hunting companions were planning to make the chase a little later, and I left earlier to avoid commotion in the brush just before the hunt. A hundred yards below my chosen spot a lone hunter was standing on a dug road. Passing the time of day, I learned that he was from Ohio, was in Pennsylvania for his first deer hunt, and that he had never seen a buck in the woods. I left him standing where I met him, telling him a hunt would be staged higher on the mountain in a short time. On looking back upon arriving at my watch I found I could see him standing, back to a tree.

The chase finally started and for some time nothing unusual occurred. Suddenly a whistle gave the signal to stop. After a moment's silence a voice, which I recognized as "Doc's," said:

"There's a spike buck in the laurels just below me, he must be wounded, he's so still."

"Kick him out, I want to see him run," a voice chimed in."

"O. K., out he goes," Doc. retorted.

And he did come and how! No wounds hampered that buck's speed. Straight as an arrow right down to me he came. Finally when he got so close to me that a collision seemed probable, I raised my gun, waved it in his face, and yelled "get away from here." As he swerved to the side I plainly saw from about eight or ten feet distance that he had several points. Noticing that he would pass near the man from Ohio, and not wanting a deer which would make me the butt of jokes for years to come, I yelled loudly, "shoot the deer coming your way, he's a legal buck." A second later I heard an empty click, a hammer on an empty chamber. Just when I thought it was too late two shots rang out, I heard a crash in the brush, and hurrying down found the deer in his last struggle.

I raised my gun, waved it in his face.

"Well you got him all right," I said.

"You bet I did, gosh but I'm glad you told me to shoot, it's my first deer."

I helped him load the deer on his car, and he left for Youngstown immediately, about as happy a man as I ever saw.

This buck had antlers with beams less than five inches long, yet each horn had four well formed points. As for my passing up this small antlered deer, I received my reward in securing a fine ten point specimen the following day. I encountered my friend from Ohio quite by accident in a large city in Western Pennsylvania sometime ago, and the thrills of that deer hunt have not passed with time.

No wounds hampered that buck's speed.

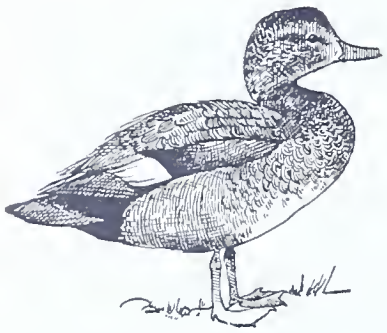
## IMPORTANT

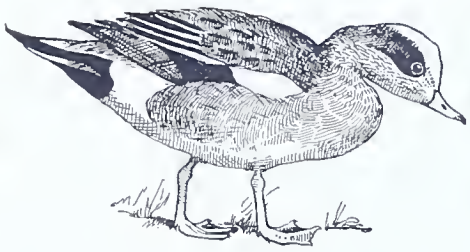
The Thirty-Sixth Convention of the International Association of Game, Fish and Conservation Commissioners to be held in New Orleans, Louisiana, on September 14 and 15 has been postponed until 1943. It is possible that meetings may have to be suspended for the duration.

The membership lists of both the International Association and the American Fisheries Society were polled to see how many members planned to attend. The number that expressed their intentions to go to New Orleans in September was so small that the meeting had to be given up.

By vote of the Executive Committee the officers elected to serve through 1942 will hold over through 1943.

—R. P. HOLLAND,
*Secretary.*


Gadwall, Male


Baldpate, Male

Black Duck, Male

Mallard, Male

# OUR DUCKS

## By John P. Eicholtz

*Editor's Note: This is the second in a series of articles prepared by members of the Third Class of the Commission's Training School as part of their training program.*

WHILE duck hunting is not as important in Pennsylvania as it is in many of the other states, it is, however, becoming increasingly popular in this State. Each year over one million Duck Stamps are sold in the United States, which means that ducks are really a big business taking the country as a whole. It is conservatively estimated that each hunter, when he goes for a day's duck shooting, spends at least ten dollars. If each of the million licensees only went duck hunting once each year, therefore, the annual economic interest would amount to $10,000,000 —quite a sizable sum. Of course this revenue is divided among many industries: the arms and ammunition manufacturers, the makers of hunting clothing and equipment, the boat makers, the automobile industry, and others. Duck shooting is really a big business!

What was the status of our ducks in the early part of the twentieth century? Just prior to 1900 there were about one billion ducks and other waterfowls in this country and Canada. By 1915 the supply had dwindled considerably, due primarily to market hunting, and to a great agricultural expansion in this country between 1900 and 1915. As a result of this expansion great marshes and pot-holes in the west were drained in order to provide more ground on which to farm. These areas formerly were the nesting grounds of thousands of waterfowl. Iowa, for instance, has about 29 million acres. At least 14 million acres was once in marshes, pot-holes, and prairie nesting areas. Now Iowa has only about 300,000 acres of this type of ground. This same thing happened in nearly all of the other western states. In 1900 the Lacy Act, which governed the sale and transportation of birds and mammals in this country, was passed. This act also eliminated market hunting to a great degree.

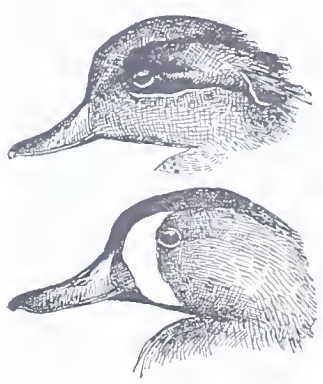
In 1916 the United States and Canada passed a Migratory Bird Treaty. This treaty set seasons and bag limits on migratory birds. At about this same time the living standards in this country were rising and more people were hunting. By 1922 the ducks were dwindling very fast. In 1927 Congress passed the Migratory Bird Conservation Act. This act gave the Federal Government the power to set up and maintain waterfowl refuges. In the spring and summer of 1931 this country and Canada had a very dry season. This drought also helped to decrease the number of ducks and other waterfowl.

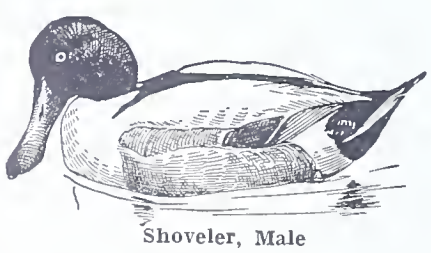
By 1934 there were only about 27 million waterfowl left. That year Congress passed the Duck Stamp Act. Since then about 14 million acres of waterfowl breeding areas have been restored. Many refuges, of no less than 4000 acres each were set up on the migratory flight lanes and are carefully administered by Federal personnel. In 1937 a Migratory Treaty with Mexico was negotiated. This treaty further aided waterfowl by controlling the shooting of them on their wintering grounds. All of this legislation greatly helped waterfowl to stage a successful comeback.

The ducks, of which there are about forty different species in the United States, are divided into two classes, the Surface-Feeders and the Divers. The Surface-Feeders include the following: Mallards, Black Ducks, Gadwalls, Baldpates, Pintails, Green and Blue-wing Teal, Shovellers and the Wood Duck. This group is the most important in Pennsylvania. They are usually found on our smaller rivers, streams and ponds, and obtain their food by dabbling or tipping up in the shallow waters. When frightened they rise abruptly from the water. The Diving Ducks include the Redheads, Canvasbacks, Ring-necked Ducks, Greater and Lesser Scaups, American Golden-eyes, Buffle-heads, Old Squaws, and the American Scoter. This group is not very abundant in Pennsylvania, although we do find a few Red-heads and Canvasbacks on our larger waters. This group is often referred to as "Sea Ducks." They dive to great depths for their food. When they take wing they must patter along on the surface in order to get up momentum. These ducks differ from the Surface-Feeders in that their hind toe is broadly lobed or webbed.

Most of our game ducks build their nests in shallow depressions in the ground or over the water. They are lined with reeds, grasses and down. The greatest duck production takes place on small areas within 200 yards of the water. The eggs number from five to a dozen and range in color from buff to green and blue.

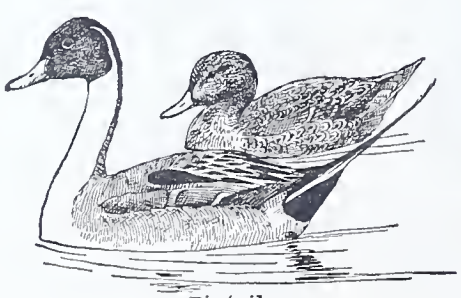
The migration of waterfowl is probably one of the most baffling of phenomena. It is no hurried affair as some people think. The ducks spend long periods on their favorite feeding grounds. Weather conditions do much to start the southern migration, because the birds will stay until their food supply is either exhausted or cut off by the winter weather. Mallards have been known to starve rather than migrate when winter cut off their food supply. The Northern migration in the spring is probably caused by a biological urge, although what causes it is not definitely known. Nearly all of our geese and 90 percent of our mallards do not migrate below the borders of our country. The migration takes place on four distinctive flyways—the Atlantic, of which Pennsylvania is a part, the Mississippi, the Central, and the Pacific. The Mississippi is the most important of them all.




Shoveler, Male

Left, top: Green-winged Teal, Male

Left, bottom: Blue-winged Teal, Male

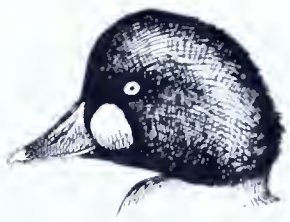

Pintail
Male Female

Wood Duck
Female Male

Redhead, Male

Canvasback, Male

Scaup
Female Male


Goldeneye, Male

Bufflehead, Male

The breeding grounds of many of our ducks is the Great Central Prairie Strip extending from near the Great Bear Lake in the Canadian northwest to the Dakotas and Nebraska in the southeast. Here nearly two-thirds to three-fourths of our game ducks nest and raise their young. The Arctic regions and Alaska are chiefly the homes of our geese and swans although a great many Pintail, Widgeon, and Greater Scaup also nest there. Other well known areas are the Northeast Coastal, and the Southwestern Area.

The Gulf states and Mexico are without a doubt the greatest wintering grounds. Mexico has about the same foods that are found in this country and the government has been establishing refuges on those wintering grounds. I was quite surprised to see so many Mallards and Blacks wintering in the southern part of our own state. While on my trapping assignment, in Montgomery County, I saw hundreds of Blacks and Mallards wintering there. I also saw two Canada Geese which I was told was there all winter, although the ice occasionally covers the entire creek except the riffles. On traveling back and forth from the school to my home I have seen quite a few ducks on the Juniata River. These apparently stayed there for the remainder of the winter.

Most of our ducks are nearly vegetarian in their food habits, although they will all eat some flesh and fish at times. Among the most important foods are the Sago pondweed, Arrow Arum, Musk Grass, Wild Celery, Wild Rice, Duck Meal, Burr Weed, Wild Millet, Smartgrass, and Cutgrass. Some of the ducks also eat Corn, Buckwheat, and other cereal grains. There are many more foods that are probably just as important as the ones I have listed, but space will not permit including them all.

Ducks are affected by many diseases among which the following are important: Aspergillosis, which is a fungus that affects the nasal passages. Tuberculosis, which affects the liver, spleen and the intestinal tracts of the birds. Other diseases are Coccidiosis, Cholera and Penumonia. Closely allied to the diseases in ducks are poisons and parasites. The two worst poisons are Alkali and Lead Poison. Alkali poison is common in the west where the waters contain a high percentage of salt and soda. When the waters are at their normal levels no ill effects are felt, but when a period of drought occurs the disease starts to take its toll. The mortality from lead poisoning is very common. The ducks require a certain amount of grit for the proper grinding of their food. In the search for this grit they pick up the lead on the bottom of the marshes. This lead in turn causes lead poisoning, which affects the crops of the birds and does not allow the passing of food into the stomach. It has been determined experimentally that six pellets of number 6 shot will kill them. It is also possible for them to get lead poison from feeding in waters that are contaminated by refuse from lead mines.

The ducks are also bothered by certain parasites, such as, the Roundworm, Tapeworm and Duck Lice. These parasites are not of a serious nature, however they sometimes cause death.

Predation is also an important limiting factor. The predators among the mammals include the Foxes, Raccoon, Skunk, Mink, and sometimes Weasels. Among the birds, the Crow, Great Horned Owl, Duck Hawk, and the Snowy Owl are the worst. Among the reptile predators are the large Snakes, Snapping Turtles and Alligators.

***Illustrations Courtesy***

***McFarland Publishing Co., Harrisburg, Pa.,***

***from George Miksch Sutton's "Birds of Pennsylvania"***

Probably one of the most important limiting factors of the duck population is juvenile mortality. The first three weeks is the most critical time, and nearly one-third of the young brood is often lost during this period. The loses are caused chiefly by droughts, storms and predation.

Nesting mortality is also high, mowing of hay being one of the greatest causes. Some nests are destroyed by flooding. This is one thing that should be guarded against especially where dams are built and areas flooded. Other nests are destroyed by being tramped upon by cattle while grazing.

There has been considerable research carried on by various people in both the United States and Canada. Dr. Logan Bennett, of State College, has done a lot of work on the Blue-wing Teal. B. L. Errington has also done work on the Iowa Marshes with respect to nesting. There has also been other work carried on with respect to diseases and other subjects. Dr. Bennett in his paper *"Grazing in Relation to the Nesting of Blue-wing Teal,"* found the following:

1. Grazing of one cow per six acres in normal years appears to be beneficial.
2. The income derived from the grazing rights may be used to advantage in the upkeep of the nesting areas.
3. Over-grazing is just as bad as no grazing, if not worse.
4. Where grazing is discontinued the predator population increases greatly.

P. L. Errington and Dr. Bennett in their paper *"Iowa Duck Studies"* found the following:

1. Nesting mortality is very high.
2. Juvenile mortality is also very high.
3. Adult mortality is caused mostly by man.
4. In competition, ringneck pheasants will lay in ducks' nests.
5. Ducks will let themselves be crowded out of inferior nesting cover, but will fight for the best areas.

Pymatuning Refuge in Crawford County is Pennsylvania's largest contribution to more waterfowl in America. It has been made a haven for waterfowl. The refuge contains nearly 3670 acres. The birds are given complete protection on this whole area. One of the most important things in the refuge is the water. They have constructed a fixed-level spillway and thereby are controlling the height of the water to a great extent. Grain and other foods have been planted to take care of the needs of the thousands of ducks and other waterfowl that stops there both in the spring and fall. Many ducks also raise their young on the refuge. A census was conducted in October 1936 which indicated that there was between 60,000 and 70,000 waterfowl present at the height of the migration. This is without a doubt one of the greatest waterfowl sanctuaries in the eastern United States.

Some of the suggested management practices that could be carried on are as follows:

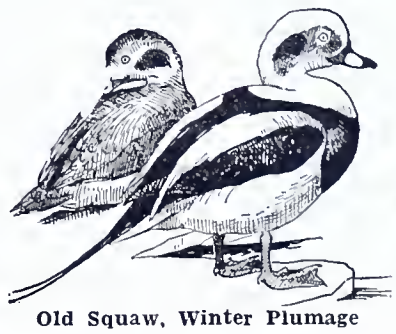
1. Restore more of the western marshes and pot-holes.
2. Plant more food on these and other areas.
3. Plant and provide more nesting cover.
4. Create and maintain more water areas, as resting and feeding grounds for use during migration.

"More Game Birds in America" in their pamphlet entitled "Water Areas: How to Create and Maintain Them", make the following suggestions:

1. Guard against flood waters.
2. Assure enough water.

*(Continued on page 30)*

American Scoter, Male


Old Squaw, Winter Plumage

Surf Scoter, Male

# LOG OF RATTLESNAKE SHACK

**Rattlesnake Shack.**

TAKEN in homeopathic doses a little outing in the far places is a tonic to us wage earners of modern city life. Like peep holes in the sides of time, our week-ends give us viewpoints on another kind of existence.

We negotiate the winding valley road, we scale the hills, and chance the ditches, to find the little gray shack nestled in the clearing. Up here on the mountain side we listen to sounds and rustles new to our ears. Our eyes glimpse flashes of intriguing movements. Here also we practice our knowledge of woodcraft and learn much in the process. Our minds, our bodies are refreshed in these pleasurable occupations and we record our experiences and observations in the "log-book," that our memories may be more accurate. We chronicle them here for the interest and entertainment of our friends.

### September

We are all accustomed to seeing familiar faces during our daily activities about town—but it is remarkable how soon we learn to recognize our forest neighbors as individuals. A certain buck or doe whose characteristics are registered on our minds, makes us feel like speaking politely or warmly, according to the length of time we have been acquainted. Hence we mention, time after time, the occasions on which we have come upon old friends.

During September deer were seen frequently crossing our path or heard blowing at the salt log across the run from camp. (Let us digress to mention that our genial Game Protector, Mark Motter, is ever alert to keep the forest dwellers happy with salt or food, according to the time of year each is required.) At any rate the salt log route was followed by certain deer even after the salt was gone, and this habit made it possible for us to see our neighbors when they used this trail to come down the mountain each evening. While making our reconnaissance trips over the meandering trails we might come upon some familiar deer, or several of them, lying in a comfortable pocket of leaves. They would gaze, immobile for a moment, then bounce away as though shod with springs, their flags waving a farewell. It is during these trips that we make a game of counting the deer and gray squirrels glimpsed in the forest. This is real sport and no gun to bother with.

We watched baby squirrels playing tag with each other upon the gum tree during this month, and adult grays cutting green tulip tree seed-pods, acorns and other ripening nuts.

We still see our rabbits in the evening and once found a full grown bunny dead on the ground. Upon examination a hole in the back of its neck indicated a weasel's nefarious practice. Everything is meat to something!

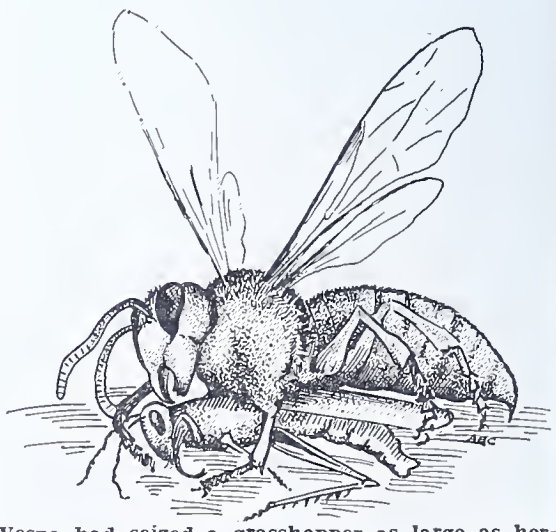
The 'possum is still on the "go" around camp and skunks come to the scrap pail for food. One night we played the beam from our flashlight on a beautiful "woods pussy" for at least fifteen minutes. He was not much disturbed and finished his meal under our flood light.

Woodchucks come to the apple trees for fallen fruit during early September. One individual hung around until the seventeenth before turning in for his winter's nap. During some seasons bats were on the wing in early September.

It is during this month that our coon-hunting friends train their dogs in our valley. Stepping out of the shack into the dark some evenings we might be startled to feel heavy forms pawing at our bodies. We could quickly recognize however, our old friends, the coon-dogs. Following after them, dancing lights indicated Irvin Moyer and his gang, who always stopped to chat a bit about game prospects and the 'coon sign we might have noted in our rambles through the valley. For many a shrewd old raccoon lives here and leads the dogs a merry chase before morning.

Among the reptiles, our blue-tailed skinks continue to play tricks on the shack's vertical walls, and one mother skink was observed taking her babies for their daily sunning. Copperheads and rattlers are still hanging around the place and we must be careful on the warmer days or nights.

Our whip-poor-wills almost silent now, stayed some years as late as September 20



**Vespa had seized a grasshopper as large as herself and had dragged it to the ground.**

# By A. B. Champlain

*Editor's Note: This is the third of a series of Nature Stories by Dr. Champlain, State Entomologist. They are based on observations made in camp over week-ends during the past ten years.*

Fruit of the Strawberry Bush.

before they pulled their freight for the Southland. The blue jays, flickers, doves, and some other birds get together in flocks when September is nearing its end. Also we record for this month the following birds—chestnut-sided warbler, magnolia warbler in full plumage, redstarts who nested in the shack vicinity, chickadees, phoebes, cuckoos and buzzards. Broadtail hawks perch on snags or poles along the road, and the barred owl and screech owl indicate their presence by voice.

Among our insect inhabitants, the katydids, vociferous early in the month, slowed down with the chill air of later days. By the 19th most of them had succumbed to the sharp breath of Jack Frost.

Yellow jackets buzz lazily during the warmer days and occasionally some smart hornet, hanging in the grass, slips up our pant leg unnoticed to remind us later that hornets are in good form. The Giant European hornet, *Vespa crabro*, is, however, the largest and fiercest of them all, and packs a wallop that would floor the champion. These insects brought into the United States nearly a century ago, have filtered into our mountain region. They build their paper dormitories in caves or hollow trees, from whence they sally forth to gather the materials for nest construction and for food.

One season the top hole of our gum tree was utilized as a stronghold by these hornets.

Irvin Moyer and his 'coon hounds.

From this point they would forage the clearing and surrounding country, gathering in their booty.

On September 9, we observed a kill. One big amazon sailing down among a moss of low herbage, led us to investigate. There was a commotion amidst the tangled foliage, "growling" and swaying that we could hardly believe possible for an insect to make. Vespa had seized a grasshopper as large as herself and had dragged it to the ground. Tearing it piecemeal, with legs, wings and other grasshopper appendages strewn about, it bore the body triumphantly away to the tree top.

Sometime, the ground where the overripe apples had fallen, was covered with these hornets who are also vegetarians. They ate out the pulp and even attacked the ripening apples on the tree. Again they sipped the sap of a leaking tree or chewed the tender bark for a little snack. These flying fortresses of the insect world were even active at night. They loved to gather about our window from which the rays of the kerosene lamp shone, and buzzed queruously because the screen prevented their entrance. Later in the season heavy frosts will kill off the worker hornets. However, the Queens of *Vespa Crabro* will survive the winter in some snug cavity in a decaying log or beneath bark.

Among the interesting experiences of September was the finding of a bee tree. Old John Henry Schoffstall, whose shack lies about a mile and a half down the trail dropped in to visit. An inveterate bee hunter, he called our attention to the honey bees attracted to some refuse nearby. We found a little honey at his suggestion, which he placed in some shallow pans. The bees were at once attracted to this sweet bait which gave us a start. By relaying the pans of honey to points along the bee line, or flight, we were able to follow the bees to the old hollow tree in which they had hived.

Toward the latter part of September when the first light frosts are sneaking upon the cultivated flowers, that incomparable artist, Mother Nature, exhibits new marvels of coloring for our visual entertainment. First the gum tree leaves assume the rich red shades that indicates approaching autumn. Then the sassafras foliage turns from green to orange and vermillion. In the swamps, the strawberry bush (Euonymous Americana) stands out with a crown of clustering red and orange fruits. No persons could possibly miss this dazzling treat if they pass this way. We have a number of these shrubs, which we transplanted as edging for our clearing.

Soon we can climb the rock piles in search of chestnuts, which are now peeping from burrs on the young trees which have escaped for a brief time that devastating disease, the Chestnut blight.

During certain years butternuts may also be gathered in the same location by the bushels, provided the gray squirrels haven't seen them first.

Deer were seen frequently crossing our path.

# EARLY FIELD CONFERENC

## EMPLOYEES OF GAME COMMISSION ATTE

Front row, reading from left to right: Carpenter, James H.; Fretz, Warren; Reinert, Jeremiah; Broadbelt, Delmont; Keene, Samuel A.; Fenstermaker, Charles F. or H. N.; Geary, James D.; Wright, Benjamin A. or W. L.; Merring, William H.; Hornbeck, John W.; Brink, Sidney; Watrous, George H.; Beatty, Herbert L.; Sines, Henry J.; Rodgers, Kitner B.; Hilton, Henry; Hogarth, Leon K.; Berrier, John D.; Steiner, H. Howard; Bowman, William C.; Gordon, Seth; Wood, G. E.; Cramer, Wilbur M.; Achenbach, Howard A.; Hiller, Charles A.; Conklin, W. Gard; Baum, Charles B.; Slautterback, John J.; Budd, A. L.; Simrell, W. F.; Wood, Norman M.; Young, Walter D.; Anneman, William; Hale, H. Bennett; Boyle, Stevens, William C.; Lightner, Jame

Second row, reading from left to r L. G.; Snyder, Charles H.; Brauch Maurice; Zell, Warren W.; Bushman B. A.; McCoy, Ralph E.; Batcheler Ross, John B.; Kelly, William C.; M Enoch G.; Lewis, Iddo M.; Zufall,

## GAME COMMISSION FIELD CONFERENCE AT C

Front row, reading from left to right: Musselman, Howard R.; Carpenter, James H.; Fretz, James H.; Reinert, Jeremiah S.; McCannon, Jarvis E.; Fenstermaker, Charles F. or H. N.; Geary, James D.; Wright, Benjamin A.; Merring, William H.; Wood, Norman M; Sherman, Maurice E.; Conklin, W. Gard; Budd, A. L.; Slautterback, John J.; Truman, J. B.; Baum, C. B.; Logue, C. E.; Gordon, Seth; Cramer, Wilbur M.; Hogarth, Leon K.; Kelly, William C.; Beatty, Herbert L.; Sines, H. J.; Hornbeck, J. W.; Murray, Thomas H.; Young, Walter D.; Anneman, William; Brown, Linwood E.; Hazelet, J. R.; Hartwig, Albert F.; Ibach, William L.; Stevens, William; Lightner, J. B.; Zettlemoyer, B. F.

Members of Board in center, reading from left to righ: Dr. H. J. Donaldson; William B. McCaleb, Vice-President; John M. Phillips, President.

Second row, reading from left to George D.; Hoyt, L. G.; Snyder, C Shuler, S. Maurice; Bushman, Leo E. McCoy, Ralph E.; Mosier, Thomas A G.; Davis, William J.; Myers, Fra Beryl L.; Zufall, David A.; Turley, Hamlin F.; Love, William G.; Srade Charles M.; Kennedy, Joseph P.; Li

Third row, reading from left to ri

BUY DEFENSE B

# THE GAME COMMISSION

## ONFERENCE AT HARRISBURG, JUNE 10, 1920

wig, Albert F.; Ibach, William L.; t, Charles D.; Miller, H. W. incoln; Van Orman, Fred L.; Hoyt, ; Groninger, Hugh H.; Shuler, S. , Ray O.; Sherman, M. E.; Benson, t, Grant; McIntosh, Raymond O.; Ritchey, Eli; Bittner, Harvey; Miller, y, E. W.; Benson, Carl B.; Pilling, Elmer L.; Emick, Charles F.; Fenstamaker, H. N. or Charles F.; Slagle, Daniel M.; Armbrust, H. R., Jr.; Williams, C. R.; Sines, Charles M.; Kennedy, Joseph P.; Sutton, James, Jr.; Seager, R. L.; Curts, Joseph M.; McHattie, Harry; Dickson, William J.; Thurston, Frank F.; MacDonald, Alex. A.

Third row, reading from left to right: Steele, Emmett V.; Davis, William J.; Smith, Joseph; Unknown; Reeder, Miles L.; Faust, William W.; Huff, Elmer D.; Baker, Stephen C.; Price, Samuel H.; Unknown; Hamilton, William F.; Irwin, Thomas N.

## PRING CLUB, CLEARFIELD CO., AUGUST 7-9, 1923

rry W.; Cox, A. Lincoln; McCabe, r, Miles L.; Groninger, Hugh H.; .; Berrier, John D.; Benson, B. A.; .; VanCleve, Harry; Logue, Arthur Eli; Bittner, Harvey E.; Seanor, Carl B.; Pilling, Elmer L.; Wilson, W. L.; Bryson, Robert G.; Sines, Seager, R. L.

h M.; Eakin, Edward N.; Dickson, W. J.; Thurston, Frank F.; Langdon, George M.; Cross, Walter S.; Delansky, William J.; Faust, W. W.; Johnson, Robert B.; Hamilton, William F.; Swartz, George W.; Mason, William F.; Rearick, L. D.; Staley, Seward; Fenton, John W; Shawley, Norman W.; Wingard, Harry J.; Englert, Hayes T.; Hassinger, Jesse M.; Hicks, W. O.; Bailer, Wilson J.; Ryder, George; Cederborg, George W.; Hunsinger, Ernest E.; Baker, Stephen C.; Marsh, Cecil L.; Kauffman, R. E.; Hunt, George H.; Stump, Paul A.; Bretz, J. Ammon; Osenbaugh, Samuel E.; Bumgardner, John W.; Shaw, Edward; Seifert, John A.; Cavender, J. Frank; Spahr, J. Russell; Rearick, J. B.; Hopkins, John A.; Oviatt, Mile; Lightner, C. A.; Unknown.

# DS AND STAMPS ★ ★

# PLANTS AS A HOBBY

By Walter F. Westerfeld*

NOW more than ever before, we need a hobby, a quiet corner where we can retire from news broadcasts and regain a sense of balance. Plants provide one of the most interesting and yet least practiced of these much needed hobbies. How often have all of us in our trips afield found a particularly interesting plant and immediately began wondering what the name of it could be? Perhaps a pretty flower or a curious leaf was the attraction or maybe a deer or rabbit was browsing on it or the birds may have been feeding on the seeds. Then too, since our driving is now restricted, many persons may take an added interest in the local flora for a pastime, discovering in their own backyard, so to speak, many interesting plants for future enjoyment. Now, if there were always someone on the spot who could identify the names of plants, the whole thing would be rather simple but since that is seldom the case, it becomes necessary to keep the plants until someone can look at them or until they can be prepared for mailing to a college, university or State department. This article is written with the idea of helping with the problems of collecting and pressing specimens for later identification or for a permanent collection.

Somebody has said that "To do a job at all means it is worth doing well." The words may not be exact but the meaning is as true for collecting plants as for any other undertaking. To help the beginner achieve success and save him unnecessary work the following suggestions have been grouped under four headings: collecting, pressing, drying and description. If the collector keeps in mind that a successful identification of his plant depends upon the care exercised in collecting and pressing it, he may rest assured that the correct name can be forwarded to him and that his specimen will become a valuable and welcome addition to the herbarium to which it is sent for determination.

### Collecting

How much of a plant should be taken is probably the first question that comes to mind in collecting herbaceous material; a question rather difficult to answer in an article of this sort since there are some 3000 different species of ferns and flowering plants in Pennsylvania alone. However, in a broad sense it can be said that all of the plant, including the roots, should be collected. At times this becomes impracticable, especially if we deal with very large plants, neither is it always necessary to have the whole plant for identification but unless the collector is sure that the flowers and upper leaves are sufficient (for instance Joe Pye Weed), it would be best to collect all of it. In this connection it should be mentioned that the basal leaves, usually lying on the ground, are often important and should be left attached to the plant even if they are dried up. The Buttercups, Asters and Goldenrods are among those falling into this group. Particular care has to be exercised in collecting the two last named since their basal leaves often occur in small groups two to three inches away from the flowering stalks, however, it can be demonstrated that the two belong together by a root connection. Violets and Buttercups are common examples of plants with importance attached to the roots. They should be washed clean and spread out in pressing. There is one very notable exception to this rule, never take the roots if you know it is a rare plant, better still, do not take any of it unless it is important to have it identified.

The best time to collect plants is towards the end of their blooming period, in other words, while the last flowers are still in full bloom and the first seeds are beginning to show their characteristics. Plants collected at this time are comparatively easy to identify and most useful in the herbarium. Like so many ideals, it is hard to attain but a special effort to collect both flowers and fruit should be made in at least two cases, when dealing with members of the Parsley family (Queen Anne's Lace, Wild Parsnip, Water Hemlock etc.). However, if you see game browsing a plant or want to know the name for some other reason, do not hesitate to take it either before or after their flowering time, there is always a fair chance of identifying it at any stage, even if they are dead and dried up. Besides, such collections may prove helpful in solving some of the game food problems. Ferns, of course, do not flower, they should be collected when the fruiting bodies are present on the underside of the fronds (sometimes mistaken for manifestations of disease).

So much for herbaceous plants. Little needs to be said in connection with woody material. A short piece of twig with enough leaves to show their arrangement is usually sufficient. Sassafras is an exception because of the difference in the shape of the leaves and Hickories also require special attention because of the variation in the shape, size and number of leaflets on the same tree, care must be taken to show this in the collection.

If the collector intends to build up an herbarium of his own, it is best to prepare two specimens, give both the same serial number and let the botanist or institution keep the one that is sent in for identification. The distribution of plants in Pennsylvania is not fully known, consequently plants sent in may possibly help to round out the picture. Respect the property of others and ask for permission to collect, it will seldom be denied to the serious student but wanton picking of wild flowers, only to be discarded a few minutes later should be discouraged.

### Pressing

The success attained with any collection depends almost entirely upon the amount of care taken in pressing the plants. A specimen stuffed between newspapers is useless in the herbarium and often impossible to identify without tearing it apart. The plant should be spread out on the inside of a folded newspaper which, by the way, approximates

*Footnotes: Research Assistant, Federal Aid Project 9R.
The author will be glad to answer questions, or furnish additional information to anyone requesting it.

Sassafras. Note the difference in leaf shape, both specimens were collected from the same tree.

Bugbane trimmed and mounted on two sheets.

Buttercup. Left, the plant as found near a spring; right, the same plant mounted. Note roots and dry basal leaves.

Blackeyed Susan. Left, the plant growing in an old field; right, the same plant mounted.

the size of a mounting sheet. This is as easy as it sounds when the plants are small but it becomes more difficult with the larger ones. However, quite a bit can be accommodated on a sheet if the plant is bent two or three times, the bend should be in the form of a sharp angle rather than a loose curve. If this does not take care of it, the specimen can be cut in half and pressed in two sections.

One of the important points in pressing is to show the leaves the way they grew on the plant, that is, spread out and flat rather than on top of each other or folded or even crumpled up. If they want to twist or roll up they can be held down with pieces of blotters until pressure is applied. One or two of them should always be turned over to show the underside. If it becomes necessary to cross a leaf and twig, the leaf should be placed under the twig. Since a critical determination is mostly based on the flowers (at least with herbaceous plants), it would seem of prime importance to show this structure clearly. Large petals on flowers with a raised and hard center (Sunflowers etc.) often curl up in drying because the center prevents any pressure from reaching the petals, a little cotton packed around the center will transmit the pressure to the petals and keep them flat; it can also be used advantageously in flattening leaves along thick stems.

Some plants seem to be made especially for the collector while others possess all the features that make pressing difficult. They may, for instance, have so many leaves and side branches that they cover up the identifying characters and make unsatisfactory specimens for mounting. Such plants must be trimmed but always leave a short stub to show that part of the plant has been removed.

The operation will be successful if the collector keeps in mind that someone, perhaps unfamiliar with that group of plants, will have to identify the pressed and dried specimen and that he should present it as nearly as possible the way it grew in the field.

### Drying

The principle involved in this part of the procedure is quick drying by means of some absorbent material and at the same time exerting pressure to keep the plants from wrinkling as they dry. The professional collector is usually equipped with wooden presses, blotters and corrugated cardboard, all of them 12″ by 18″. The presses can be made from wooden strips nailed together or two boards joined by crosspieces, the blotters and corrugates are available from supply houses. The usual method is to start with a blotter, a corrugate and another blotter on the bottom press, the first specimen can then be arranged in its newspaper folder and covered with the same combination, a blotter to absorb the moisture, a corrugate to carry it off and another blotter to dry the underside of the next specimen. After all the plants have been added to the pile, the top press is laid on and the whole pressed together tightly with two stout straps near the ends of the press (Luggage straps obtainable in auto supply stores are satisfactory).

The quicker the plant can be dried, the better they will keep their natural color. Many collectors, therefore, employ some means of forcing warm air through the press, especially during a rainy spell when open-air drying often results in black or molded specimens. A homemade, portable dryer (see page 27) consists of four pieces of ¾″ plywood and can be taken apart since only two corners are joined by solid-pin hinges and the other two by the loose-pin type which permits easier handling and allows it to be stored folded flat. If an electric hotplate can be used to supply heat, the box could be built smaller to fit a press rather than to fit the camp stove shown. In any case, the heat supply must be covered with a piece of sheet metal to distribute the heat. The press itself rests on steel rods not less than eight inches from the heat, a piece of wire screen inserted between the rods and the press will prevent anything from falling on the hot metal plate.

The 12-hour periods are usually sufficient to dry most plants as compared to five or six days without artificial aid. Such a drying arrangement is admittedly a big help but satisfactory specimens can be produced under ordinary conditions without it if the press is placed in the sun during the day. In that case it is advisable, however, to change the moist blotters to dry ones every day, at least in the beginning. The straps should also be retightened frequently to provide constant pressure.

All of this equipment, with emphasis on the pressure, blotters and straps, is really necessary to turn out satisfactory material but the occasional collector can often do very well by laying his specimens on some flat surface, separating them with several newspapers and finishing the pile with a board and a stone or other heavy object to apply pressure. Changing daily to dry newspapers is, of course, important. Remember also that a dried specimen is fragile and has to be handled carefully.

### Description

No matter how good the specimen turned out, it is never complete without certain important information which will later be incorporated in the label with the name of the plant.

*Habitat.* A definite type of habitat can usually be conveyed to the botanist by one or two words: woods, roadside (in woods or fields), streambank (add name of stream), edge of pond or lake, by spring, in water, swamp, old field, meadow (near stream or in woods), low ground (not as wet as a swamp), etc.

*Location.* Give the name of the county and if possible that of the township also the direction and the air distance to the nearest town that can be located on the map.

Date and name of collector.

The date assumes more than ordinary importance to those who are interested in establishing the flowering periods of plants.

*Miscellaneous.* Mention the original color of the flowers if they have faded or changed in drying. In the case of woody material, add the habit of the plant (tree or shrub), its height and character of the bark.

At the first glance these suggestions may seem rather extended and confusing, in actual practice they will turn out to be much simpler than they sound. If they are treated as guided and supplemented with common sense, they should prove helpful in getting the amateur botanist started. Not until it is tried will one know how much pleasure there can be in studying and collecting our wealth of plant life—so many of them often contemptuously called "weeds" are so important we could not live without them.

*(Continued on page 27)*

# WHY NUMBER THE BIRDS?

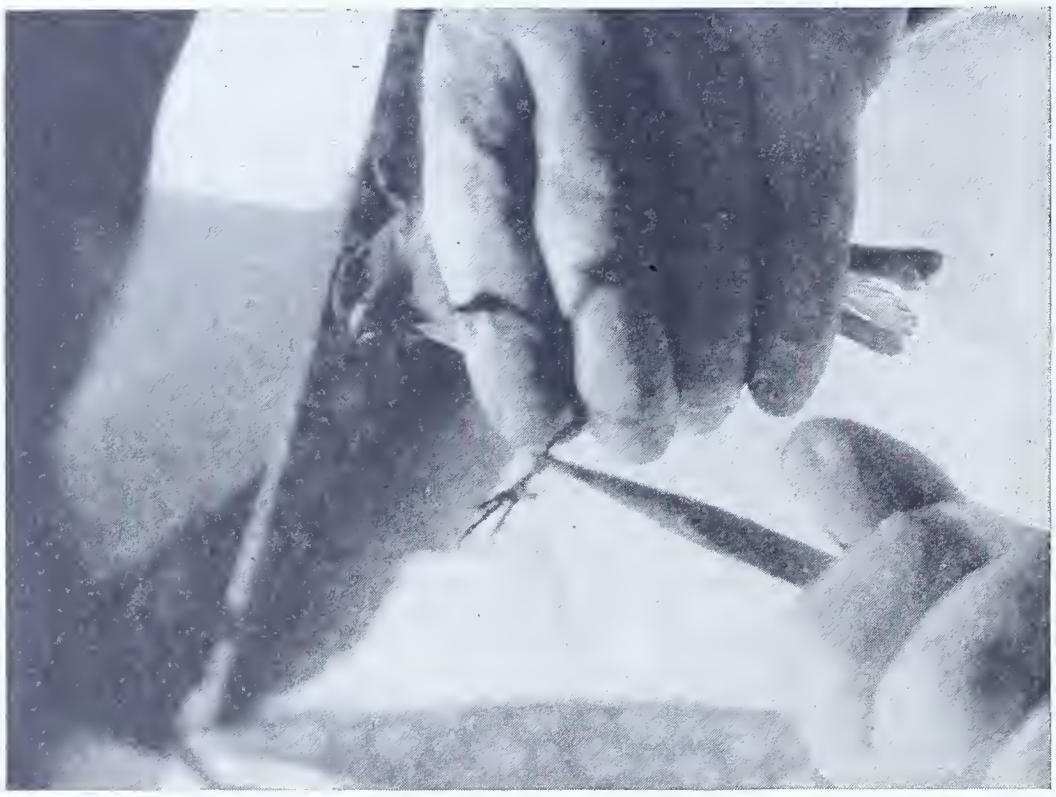


Photo by Leo A. Luttringer, Jr.
The author banding a young Indigo Bunting.

## By Dr. H. B. Wood

*Editor's Note—Every bird bander hopes that sooner or later the feathered captives he bands will show up somewhere.*

THE banding of birds is no modern activity. In 1669 in central Europe, where herons were caught as a diversion, the reigning elector of Bavaria placed on a heron's leg a silver band on which was the name of Duke Ferdinand. Sixty years later, in 1728 the heron was caught, the name on the band recognized, and the complete information authenticated. This is the earliest known instance of bird banding. About 1773 George Walpole, 3rd Earl of Oxford, placed a gold finger ring on the leg of a heron which was captured ten years later. In 1844 another heron was found with a leg band which had been placed there fifteen years before.

The banding of birds has been carried on in many parts of Europe, where it is termed "ringing". It has supplied valuable information and many countries have cooperated in the investigation. Its extent is shown by the work of Peter Skovaard who ringed 100,000 birds in Iceland and Denmark and had 5000 recoveries reported, mostly within less than two years.

Bird banding in America was begun in Massachusesttt in the early part of the century, and by Jack Miner in Canada in August 1909, as individual hobbies. In 1920 the Biological Survey (now U. S. Fish and Wildlife Service) took over the work in the United States, and up to June 30, 1941 the Survey cooperatives had banded 4,069,501 birds with return reports on 267,666, or over 6 percent. About 10 percent of the game birds are reported. Considering the great numbers of wildfowl which are shot it seems that relatively few with bands are ever reported to the proper authorities. In the fiscal year 1941 the Survey banded 24,540 wild mallards, 9,226 black ducks, 15,105 pintails, and many other game birds.

Every bird shot, found dead, or caught with a band should be reported promptly to the Fish and Wildlife Service, Department of the Interior, Washington, D. C. The report should give the serial letter or number, followed by the complete and correct number, as A-347652 or 41-151763, together with the name and address of the finder. The date and place where the bird was found, and the cause of death if known should also be stated. The finder is later notified when and where the bird was banded. If the number on the band is too much worn to read the band should be sent. All this information is needed and every person, sportsmen and others, are requested to help in this investigation.

Various states, as Pennsylvania, have been banding certain game birds. Such bands bear the name or abbreviation of the state. Birds with these bands should be reported to the proper state authorities, those of Pennsylvania to the Game Commission, Harrisburg, Pa. The federal bands contain only a number with a serial letter or a number, as B-105907 or 40-253533. These numbered bands are recorded in Washington under the name of the bander to whom issued, who makes his report to Washington.

Bird banding is a scientific investigation which reveals information which cannot be obtained by any other method. It determines the length of life of birds, their mating proclivities, the direction and distances of migration, frequency of return to the old haunts, plumage changes and numerous other interesting facts. Much data has been accumulated on all these points.

The length of life of birds depends partly upon the species. The larger birds live longer. The smaller birds usually live three or four years, six or eight are noteworthy, and ten years remarkable. Some of the longer lives recorded were 12 years in a pintail, least tern 10, common tern 8, starling 6, blue jay 7. Injuries are probably the greatest cause of death, with diseases next in order. Post-mortem examinations have revealed that pneumonia and bird malaria are very common, even in small birds which have been struck by automobiles—which indicates that many birds killed on the highways are already sick and not alert enough to dodge the cars.

Some of the larger birds apparently mate for life, but banding has shown that the smaller birds obtain new mates every year, some a new mate for a second brood. Some wrens are known to have two mates at the same time. Another interesting fact learned by banding has upset many old preconceived notions that some young birds are fed and watched for a few days after they leave the nest and then entirely leave their parents. This is true of wrens and robins, but young barn swallows stay with their parents and migrate with them in the fall.

Ducks were formerly believed to migrate indiscriminately, without any cross country movement, but banding has shown that certain flyways are frequented by them with occasional direct east and west movement. Jack Miner has banded many thousands of geese and ducks near Kingsville, Ontario, southeast of Detroit, and received hundreds of notices of his birds being shot, only four or five of each kind being reported from west of the Mississippi longitude. East and west travel does occur, as shown by bánding records. A coot banded in Green Bay, Wisconsin, October 22, 1930, was shot in Essex, Connecticut, November 5, 1930, just fourteen days later. A banded duck hawk flew from Lake Mohonk, N. Y. to Nebraska from June to September. A purple finch, banded in Sault Ste. Marie, Mich. in August was trapped in Massachusetts the following

*(Continued on page 28)*

Some wrens are known to have two mates at the same time.

# THRILLS AT PYMATUNING

By Hal H. Harrison

The Valley Daily News, Tarentum, Pa.

During the years that I have been visiting the Pymatuning I have never failed on any trip to find something of outstanding interest. In fact, I have never made a trip to the Pennsylvania Game Refuge in Crawford County without adding to my knowledge of birds.

It seems inevitable that each trip must be marked with some outstanding event or events that make that trip most worthwhile.

In October back in 1939, I recall the great excitement that accompanied the appearance of a Northern Phalaraope at Pymatuning. Never before or since has this oceanic bird been seen there. On that same trip I had my first view of an American Egret; that beautiful big white heron of the southland that wanders north in the summer and fall.

It was in the spring of 1940 that Bill Grimm and I waded far into the swamp to be the first persons to ever identify Caspian Terns at Pymatuning. It was the same spring that I stood on Blair bridge and counted the eight hoots of a Barred Owl coming from a forest across the swamp.

On October 5 of that same year I saw my first Dowitchers, Golden Plover, Red-backed Sandpipers and Stilt Sandpipers.

Last spring it was my rare privilege to take beautiful colored pictures of the American Bittern at her nest in a cattail swamp at Pymatuning. The story of this experience is now a part of my lecture—"Wild Birds at Home."

My first view of a Double-crested Cormorant came just last fall. And it was last October that Dr. George Sutton, one of the world's greatest ornithologists and painters of wildlife, taught me identification lessons on the Lincoln's Sparrow, Henslow Sparrow and Baird's Sandpiper. It was Dr. Sutton who helped me add a White-rumped Sandpiper to my "life list."

So, you can understand why I left Tarentum last Friday afternoon for a week-end at Pymatuning, knowing full well that something unusual and something new MUST happen. It always did.

Photo by C. Gordon Krieble

**Wings Skyward! Canada Geese over the Refuge.**

Let me assure you that this trip held no disappointments. The fact that in the latter part of March, I was able to identify 58 different species of birds, including 21 different kinds of waterfowl, was in itself a justification for this trip to the game refuge. But the excursion held other thrills.

As an example, there was the sky dance of the Woodcock in the light of a bright moon on Friday night. Here, indeed, was a sight long to be remembered.

Picture the setting for this courtship dance of one of nature's tiny children. It was along a country road which was bordered on both sides by hundreds of acres of swampland. The road is elevated above the swamp and as far as the eye can see, thousands of alders, cattails, willows, red-osier dogwood and other swampy shrubs spread across the landscape.

Our car came to a sudden stop when someone declared he heard the "peent" of a Woodcock. Sure enough, the cry was quite distinct. It was only a few moments until the "peent" stopped and the little bird took to the air in his beautiful sky dance. In great spirals, he flew up, up and up toward the moon. All the while, his wings whistled a love song to some female hidden in the bog below.

At the very peak of its flight, the Woodcock started its drop to the earth. The regular whistling of the long climb into the sky changed into an irregular whistle that was interspersed with a soft melody. Down he came; faster, faster and faster, until it seemed that he must crash to the earth. But no! His spreading wings broke the fall. He alighted very close to where he went up. And again—"peent!"—Hal. H. Harrison, *The Valley Daily News*

Photo by C. Gordon Krieble

**School children observing waterfowl on the sanctuary.**

# THE PHANTOM COON

*By Paul P. Prugh*

"Go ahead and throw it to 'em—maybe they'll leave."

THERE was a nip of autumn in the air this September eve as Doc came bustling in, the collar of his hunting jacket turned high around his neck. The moon hung low and full on the horizon in its harvest splendor, an enchanting night to roam the woodlands, but not a good hunting night.

"Where are we going tonite"? he asked. The training season had been in several weeks and we had been trying to run the hounds a couple nights a week, getting them toughened up for the real hunting ahead.

"Anywhere you say", I told him and his prompt reply was "The Phantom coon", in other words Pierce Hollow. "That place kind of haunts me", he said.

Doc was ever hopeful that some night we would see this old ring-tail we had chased several times, treed several times, and denned several times, but never yet got sight of his furry hide. Thus we had come to call him the Phantom Coon.

Pierce Hollow is a sizable tract of timber cut over some years ago, with an old slab pile in its midst, a few hollow trees, some of which we knew were dens, towering heavenward along its brushy sides, a small stream trickling down its gentle slope, and the farm lands rolling away on either side, with fields of waving corn supplying ring-tail with bountious feed.

We had chased this coon from the corn field above the hollow and from the one below, always into Pierce Hollow and safety. We had put him in the slab pile, in his den tree, and on towering oaks in whose burly tops he lay securely hidden from our view. Some night we hoped, when Jack Frost had brought this leafy screen floating earthward, to see this cunning master of the wild.

Well we would try him again tonight, give him, the dogs, and ourselves another exercising. "I'll be up as soon as I close the office" Doc said and with that departed to resume his duties until nine o'clock.

Old Bill and the Black Pup had been fed as soon as I returned from work, and were prancing about their kennel, rearing to go, so while waiting for the Doctor, I collected my lights, carbide, and other paraphernalia, and was just putting some apples and a couple dog biscuits in my hunting jacket when his car horn speeded me to action. Soon we were off down the road, to our hunting grounds, the two anxious dogs in the back of the car.

We talked as we drove along of how we would use a little cunning this time ourselves, and try to slip up on this foxy old coon. Oh, yes, we were smart fellers, we'd show him, (maybe). Anyway we decided we'd leave our lights out, climb the steepest part of the hill to the corn field, and leave the dogs loose, yes, sir, we'd run right on to him, surprise him plenty, and chase him up the first bush he came to, (so we thought). Well, we tried it.

We climbed the hill, an old pasture field, in the semi-darkness, puffing like steam engines. Doc went down kerplop once, saying something about people leaving barbed wire lying around, and the dogs about pulling my arms out of socket. We finally reached the top, and the edge of the corn, gasping for breath.

When we could breathe enough to talk we spoke in whispers, and in a moment I unsnapped Old Bill from the leash. Right then and there our plans went a little hay-wire, for the old fool in his eagerness to be off let out a bawl that could be heard a mile. But in a flash he was gone a white streak through the corn stalks. Black Ace followed a jump or so behind and in a few minutes both were crying coon out across the flat.

"There, I told you we're smart fellers", Doc commented, "we'll get to see that old rascal to-night, I hope." I had misgivings, though for Old Bill's bawl had given him the signal to be off. And off he was in a nice sweeping circle, down out of the corn, through the pasture and into the edge of Pierce Hollow, the hounds in full cry behind him.

By the time we got ourselves collected, as to the direction he was taking etc., Old Bill was cussing and going on down in the cut over timber and as we headed towards him both his and the pup's tree bark floated to us on the Autumn breeze.

"You know that was quick," I says to Doc, "and if he didn't reach his den tree, he may be up in those grape vines or a sapling where we can look him over for I knew the slab pile was further up the hollow.

Oh, well, it was only training season anyway, and we knew it was coon we were running, so we were happy.

We approached the baying hounds, our hopes high, quite anxious for a glimpse of the coon who had evaded us so often. Bill was trying to climb the tree, and the pup was filling the night with his bugle bawls. He was up there, of that we were sure, but alas, again he had succeeded in keeping from our sight. He had chosen a giant oak, impossible for humans to climb, covered with thick green foliage, which our powerful flashlights could not penetrate.

"Well I'll be ...." Doc says, as we reluctantly snapped the dogs on the leash and started homeward, leaving this wiley ring-tail still the Phantom Coon of Pierce Hollow.

# HOW MUCH GAME ON YOUR HUNTING AREA?

*By P. F. English*

CARRYING capacity is the maximum density of animals that a particular range is capable of carrying under existing conditions. Needless to say, all game ranges will not support the same density of population. Some ranges, because of their composition and age of plant species, carry a higher population than other types. For example, in Centre and Huntingdon Counties in central Pennsylvania—country typical of much of the white-tailed deer range in Pennsylvania—deer populations varied because of the marked differences in forest types. In the "Barrens," an area of scrub oak-pitch pine, 1 deer to 18 acres was found in 1938 on a sample area of 1,344 acres. By the following fall it was estimated that the area had 1 deer to 14 acres. The kill by hunters and winter loss in the past two years reduced the over-winter population to 1 deer to 18 or 20 acres, which appeared to be the carrying capacity of the area.

In the Seven Mountains region of Huntingdon County, Pennsylvania, on a 3,023-acre sample area of 40- to 100-year-old chestnut oak, the population was 1 deer to 116 acres. This area is about 8 miles from the Barrens area. The contrast in the deer population of these two types is, no doubt, due to a greater food supply in the Barrens area.

Carrying capacity of a game range, as a whole, is no greater than the capacity of its most severe season, which in Pennsylvania is winter. In estimating the carrying capacity of a game range and in preparing management plans for it, all species of wildlife residents of the range must be considered. The condition of the food on the range in question must be an important indicator as to the stocking of the range. The carrying capacity of the game range, then, means the number of game mammals and game birds the range will sustain and yet maintain its vegetation in a healthy and growing condition, even through unfavorable seasons.

An area might satisfactorily carry 1 deer to 20 acres and at the same time be very unsatisfactory for some other species, such as the ruffed grouse. Perhaps we should talk more about wildlife range capacity and less about the carrying capacity of ranges for individual species. In other words, though an area could carry 1 deer to 20 acres, perhaps for the benefit of grouse, snowshoes, songbirds, and squirrels it should not be subjected to a greater deer population than 1 to 50 or 100 acres.

It is important to study carefully the plant species that are most palatable in order to determine food utilization by wildlife. Overpopulations of deer cause an overbrowsed range and a natural lowering of the carrying capacity for deer, grouse, turkeys and snowshoes.

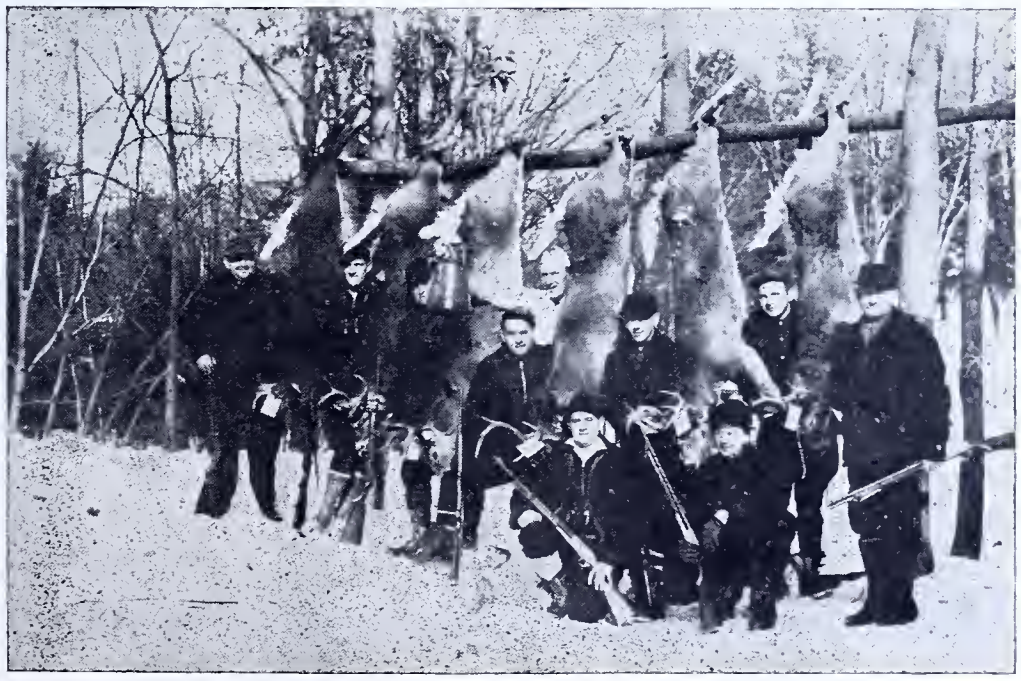
The stockman has learned by experience that there are certain plant indicators which warn him when he overgrazes his range, and he is able to remedy the difficulty by removing the stock or at least lowering the number of stock on that range. Unfortunately for white-tailed deer and most other species of wildlife, we have no indicators of range capacity for individual species or groups of species.

Ringneck Pheasant management programs must attempt to provide large populations so that there will be suitable surpluses for the hunting season. Pheasant studies in southeastern Pennsylvania show some interesting facts. Two adjoining areas were selected for study, the Brooksides area of 825 acres and the Spring Creek area of 850 acres. These areas were in the first-class pheasant range of Lehigh County.

A fall census in 1938 indicated 1 bird for 2 acres on both areas. The kill on the two

*(Continued on page 27)*

Releasing ringnecks. Pheasant management programs must attempt to provide large populations so that there will be suitable surpluses for the hunting season.



Deer population vary because of marked differences in forest types. Above are six dandies.

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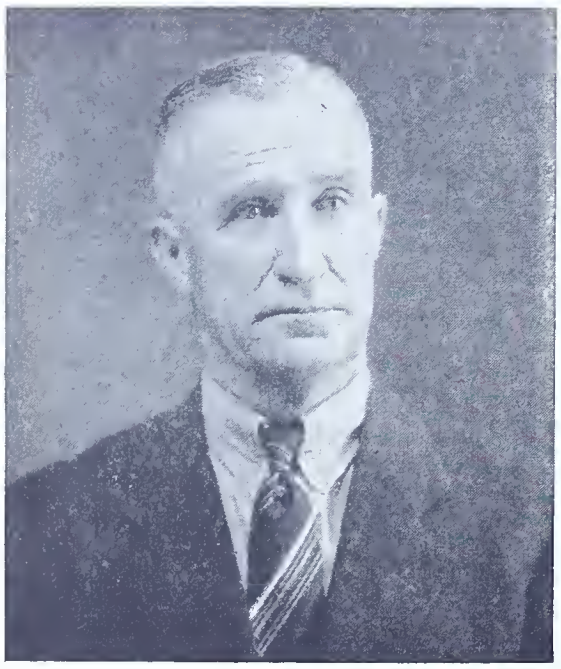
* A report from the Pennsylvania Cooperative Wildlife Research Unit.

** Associate Professor of Wildlife Management, Department of Zoology and Entomology, The Pennsylvania State College.

# CURRENT TOPICS



John A. Hopkins

## Field Notes

"On May 19, Mr. Ira S. Frey, of Washington Boro., Pa., took a day off from his regular work. This proved to be a very profitable day for him. Here is the story:

While he and his brother-in-law, Mr. Raymond Ament were mowing a lawn, Mr. Frey noticed a grey fox run across the road into an old abandoned quarry hole.

He ran into the house and got a single-barreled shotgun and went to the bank of the quarry where he lay down. In about five minutes the young pups came out of the den and started to play. He waited a few more minutes and then the female fox came out and looked around. He killed her with his first shot and then started to shoot at the pups. His score for that day was one grown fox and four pups. The other two pups got back into the den.

On the morning of May 20, he again returned to the quarry and succeeded in getting the other two pups. He is certainly pleased with the thought of getting $28 in bounty for his trouble."—John P. Eicholtz, District Game Protector, Lancaster County.

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"During the week of June 22 I saw something very interesting. Daus Paul, of Belsano, runs a saw mill near Nanty Glo. On it he has a small cut-off, the frame being made of tubular steel and partly open. A wren made a nest in this frame, laid eggs and hatched them. The mill runs eight hours every day and a man uses the cut-off continually sawing slabs. Everytime he saws a slab the frame work moves. I saw this bird enter the frame work and feed her young while the saw was being used. She is very tame."—Bruce W. Catherman, District Game Protector, Cambria County.

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**WEAR RED!**

## Good Wishes

TODAY many new faces are replacing the old ones, not only in the Commission, but in every service and industry throughout the country. Nevertheless the old faces will linger always. Game Protectors W. M. "Mac" McClarin and John Hopkins are not on the official roster any more, but that doesn't mean that they have slipped out of the picture.

Despite the fact that Mac retired on April 1, due to physical disability, and John left the service on super-annuation on June 19, 1942, they're still much a part of our unofficial family, and their hearts still burn with the same old fire of enthusiasm as they did throughout their many years of hard and loyal service.

Mac started with the Commission as a Deputy Game Protector on November 1, 1923. On April 1, 1924 he was made an Assistant Protector, and on July 16, two years later, he was elevated to the position of Game Protector, in which capacity he served until he retired.

John began his service on August 1, 1923 as a Game Refuge Keeper (now Game Protector Land Management) and served in that capacity until he retired.

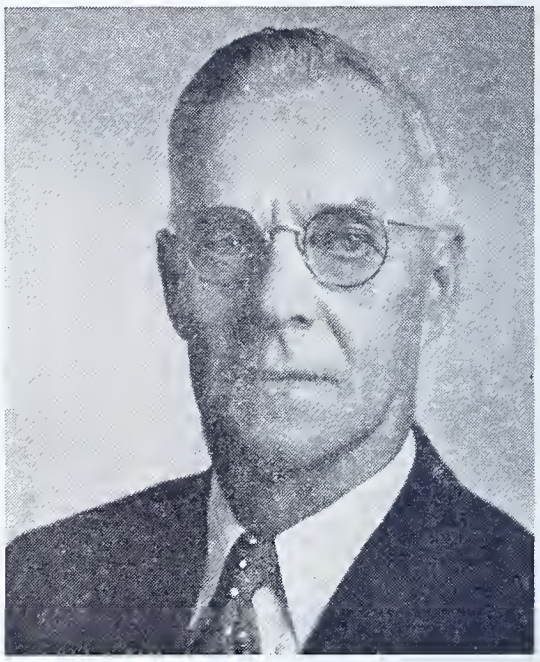
Like the rest of the old timers who have done their bit, both veterans would like to hear occasionally from their colleagues and sportsmen friends.

## A TRIBUTE

*This fine tribute, prepared by M. E. Sherman, Field Division Supervisor, Division "E", expresses the fine brotherly esteem in which John B. Ross, who lost his life while trying to help others, was held by the men of that Division, which he once supervised.*

**To John B. Ross, Field Division Supervisor, Division "C", and former Supervisor of Division "E", your comrades and co-workers of your old Division mourn your loss to the service. Your boundless enthusiasm, untiring zeal and ever friendly attitude, always encompassing the circumstances to mitigate the adverse and discouraging, shall be a guiding standard toward which those of us, who remain, may carry on in the service of Wildlife Perpetuity.**

**May the shadow of your virtues constantly haunt us in the deep, deep forests of Northern Pennsylvania, where our associations may again reflect your boundless love for the task you had chosen as your life's work. And unto us may the Almighty Maker grant us to commune with you, as we reflect in the glimmering coals of our camp-fires.**



W. B. McClarin

## *A True Sportsmen's Creed*

*Let me live, O Mighty Teacher,*
*Such a life as man should know;*
*Stressing loyalty as a feature,*
*With joy—not too much of woe.*
*Let me run the gamut over,*
*Let me fight and love and laugh;*
*And when I'm beneath the clover,*
*Let this be my epitaph—*

*Here lies one who took his chances,*
*In the busy world of men;*
*Battled luck and circumstances,*
*Fought and fell and fought again;*
*Won sometimes, but did no crowing,*
*Lost sometimes, but did not wail.*
*Took his beating, kept on going,*
*Never let his courage fail.*

*He was fallible and very human,*
*Therefore, he loved and understood,*
*Both his fellow men and women,*
*Whether good or not so good.*
*Kept his spirits undiminished;*
*Never false to any friend;*
*Played the game until it finshed,*
*Lived a True Sportsman to the end.*

—HERBERT LEWIS DAVIS

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A doctor near Greensburg, Pa., was cutting grass and came across 12 pheasant eggs. He took them in and placed them on an electric heating pad. Much to his surprise the pad proved a good foster mother, because within a few hours 12 pheasant chicks emerged from the shells. The baby pheasants will be raised to maturity and released.

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**THE ONLY SAFE GUN IS THE GUN SAFELY POINTED BE CAREFUL:**

# CURRENT TOPICS

## Notes from the Boys in Service

C. Gordon Krieble, who left for the Navy on July 22, dropped us a card the other day. He's doing as good as can be expected considering the mud, etc., which prevailed around his camp at that time. Write often Gordon . . . .

George Koehler stuck his neck out down at Fort Bragg, so his letter indicates. Seems as how they found out he was a jack of all trades, especially a good carpenter, so they up and makes him build all the tables in the mess shack . . . Good going, George.

Knowing Col. Biddle as long as we have, we just naturally associated him with the army—so much so that we forgot to mention when he was inducted into regular active service the latter part of April. His present address is: New York Port of Embarkation, 1st Ave. and 58th St., Brooklyn, N. Y.

Who called up the other day but none other than James N. Morton, Chief, Division of Land Management, to say that he was commissioned a First Lieutenant in the Army Air Force and received orders to report to the Officer's Training School at Miami Beach, Fla., leaving Aug. 6. From there his orders call for assignment temporarily to the Air Intelligence School, Harrisburg, Pa. Jim served 19 months in World War No. 1, 17 in France.

"Bob" Lichtenberger is now at Fort Bragg, along with other Commission boys and Seth Gordon, Jr.

"Dick" Gerstell just got his "Sailing" orders. He reports for active duty at the Naval Air Station, Seattle, Washington, August 31, where he has been commissioned as a Lieutenant and assigned to the Medical Corps for aeronautical research.

As we go to press "Bill" Schaffstall, Division of Accounting, got his call. Hope he meets up with the other boys.

## New Commissioners

As we were going to press we received word of the appointment by Governor Arthur H. James on August 13, of two new Commissioners—S. Harold Fisher, Huntingdon, and Harold Moltz, Williamsport. We got their names on the masthead, but will have to wait until October to introduce them officially.

Jesse Newcomer

His brother officers and sportsmen friends will miss the smiling countenance and enthusiastic personality of Jesse Newcomer, that genial Game Protector from Towanda. He first began his service with the Commission on December 1, 1935 as a Game Refuge Keeper near Slate Run, Lycoming County. He was later promoted to the position of Game Protector on August 16, 1938—a position which he held when he left the service on July 30, 1942 in order to accept a better position in private industry. Jesse made a host of friends and did a splendid job both in the capacity as a Land Management Protector and as a Law Enforcement Officer, the latter service being confined almost wholly to Bradford County. We all wish him luck in his new undertaking.

## Good Wishes

Within the past three months the Commission has lost the services of four very efficient, loyal, and faithful employes—all members of the fair sex. And like others who have stepped out of harness in the past, we hope they will let us hear from them once in a while or drop in to see us. They are: Mrs. Mildred B. Oberdick, of the Division of Lands who started with the Commission on September 1, 1933 and resigned August 20, 1942; Mary Elizabeth Brown, Division of Accounting and Budget who began February 8, 1937 and resigned August 14, 1942; Mrs. Marjorie G. Walmer, Division of Land Management, who joined the staff on March 16, 1937 and resigned June 25, 1942; and Miss Martha Showers, also Division of Accounting who began August 25, 1939 and resigned August 15, 1942. We wish all of them the best of luck.

## *Four New Pamphlets*

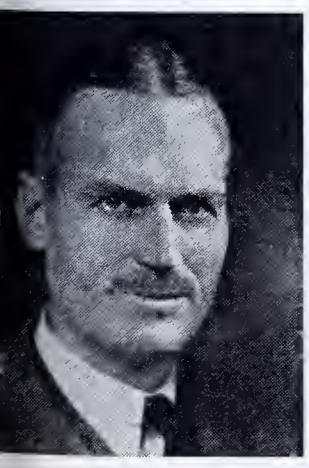
Four new educational pamphlets prepared by the Division of Public Information have just been completed and are now ready for general distribution in liberal quantities. They are:

The Black Bear in Pennsylvania
The White-tailed Deer in Pennsylvania
The Ringneck Pheasant in Pennsylvania
The Beaver in Pennsylvania

These pamphlets are the first of a series on the game and fur-bearers of the Commonwealth, and can be secured free of charge from the Commission, at Harrisburg. It is believed they will help greatly to fill the ever increasing demand for such material from teachers and pupils in our public schools.

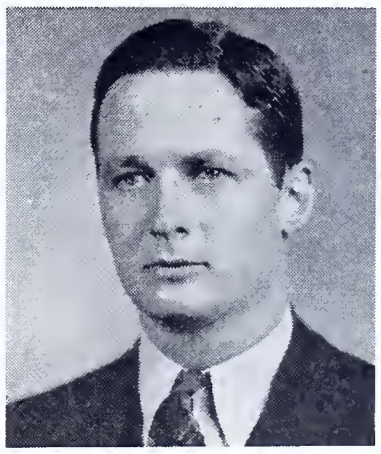
The fifth edition of "Wildlife in the Farm Program" written by James N. Morton, Chief, Division of Game Land Management, one of the most popular bulletins ever published by the Pennsylvania Game Commission has also just rolled off the press in a slightly revised form. This edition brings the total number of copies printed to 130,000.

This bulletin, worthy of a place in every sportsman's library, is crammed with information of special interest to landowners.

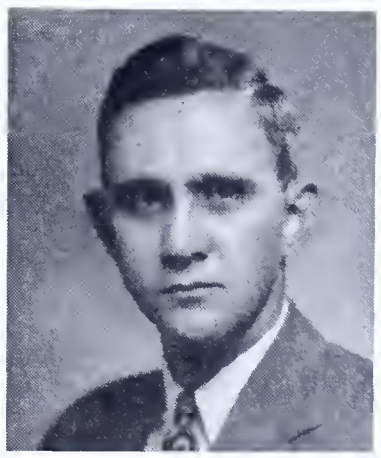


Col. Nicholas Biddle

Lieut. James N. Morton



Lieut. Richard Gerstell



Robert Lichtenberger

William Schaffstall

# What is a Sportsman?

*Continued from page 3*

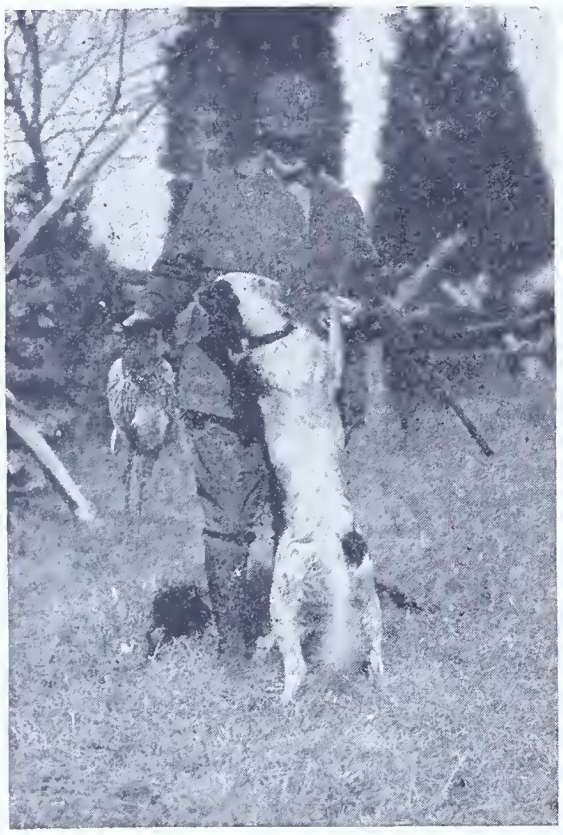


Photo by Henry Schell.

**Game and fish were not interpreted in terms of recreational and sporting values.**

tion, and our resources continue to disappear. Eleven million Americans pay an annual license fee to hunt and fish, and there are thirty-six thousand societies, clubs, leagues and associations whose avowed object is conservation . . . . Eleven million horses running wild on the hills can't pull a rubber-tired buggy to town unless there is a harness to hook them to the load. Likewise, eleven million sportsmen, and thirty-six thousand scattered, organized groups without some kind of harness, can't prevent an organized group of Woodchuck Hollow from promoting a factory whose total benefits to the community are a payroll of ten employees, although the factory may destroy a thousand miles of river and everything in it including the water for drinking purposes."

A real sportsman, therefore, identifies himself with at least one organization devoted to the work of conservation. He sponsors and supports legislation which provides ways and means for conserving those basic resources upon which the sports of field and stream are so dependent. He does his part in restocking barren areas, planting trees, and in creating food, shelter, cover and range for wildlife. As he engages in these activities he is led to understand that sound sportsmanship is something more than catching fish for the pan and shooting game for the pot.

But membership in a sportsman's club will not per se make a man a sportsman, any more than membership in a rifle club will make a member an expert marksman. Above everything else, both he and the organization to which he belongs, must be motivated by a generous spirit. Other groups, such as fox hunters, raccoon hunters, field trial enthusiasts and nature lovers, even though they be in the minority, have as much right to their sport as those who compose the majority groups of outdoormen. A real sportsman is as zealous to protect their interests as he is those of his own group. Such a sportsman seeks no special privileges to guarantee him success in advance, nor does he cry for immunity from penalties when he inadvertently violates a rule of the game. Certainly he will accept no advantages for himself which are not available to the other fellow, nor will he accept any concessions which place other participants of the game at a disadvantage. All that a sportsman asks of any man is that he be given an even break, and, being assured of this, he is satisfied with whatever results his day's effort may bring forth.

There is another trait of character that differentiates the sportsman from the mere hunter and fisherman, and that is his deference to knowledge and men trained and experienced in the management of our wildlife.

The sportsman of today is living in a world which is different, in values as well as in substance, from that of his forefathers. The America of our ancestors was a hunters' and fisherman's paradise, teeming with game and fish, and that is about all that it was. According to the governing motives of the nineteenth century, wildlife—like the Indian—was a menace to the onward march of 'civilization'. And so the problem in those days was to rid the land of wildlife and not to conserve it; to make way for the plow, the binder and the reaper; and to supply coal, ore and lumber to meet the demands of the growing industrial and domestic needs. Game and fish were not interpreted in terms of recreational and sporting values, but in the light of life's necessities and urges. Fortunately for us, our forefathers were, like the world about them, realistic. Leisure was for them a luxury that only the indolent enjoyed. Their recreation, except for making love and going to church, was so integrated with their daily tasks that it was work in itself. Sportsmanship, as we understand it today, was unknown to them. Wildlife, apart from its economic value, received little consideration. The meat market furnished an outlet for the surplus of game that was undesirable; and the fertilizing plants, crude as they were, converted fish into a product needed by the farmer. Their chief concern was the *utilization* of the natural wealth about them so that it might produce goods and cash for the sustenance of their lives, for the buildings of homes and the creation of new industries. What we call a "game-hog" in this age of scarcity was in the days of our fathers a good and reputable citizen. It was not the sport of the chase that urged these men of the wilderness to kill and destroy but the circumstances under which they were compelled to live. Unfortunately, damage, out of proportion to the benefits received, was done. If the sports of the great outdoors are to survive, we must repair this damage.

This is not a hopeless task in the light of the knowledge and technical information we have at our disposal. Since we cannot restore the America of our ancestors (nor would this be desirable even though possible) we can create and maintain an environment in which fish and game can live and multiply. We know, or we should know, that the progressive shortening of seasons, the outlawing of the market hunter, the promiscuous stocking of native and exotic species, and the reduction of creel and bag limits have in the main done nothing more than retard the gradual decrease of game and fish. The ways of nature, which once kept controlling factors in balance, are ineffective where civilization, with its improved transportation facilities, industrial development, increased numbers of better-armed sportsmen, and clean farming, has made its inroads. The survival of wildlife depends upon man's ability to do for nature what she can no longer do for herself. This is a tremendous responsibility. To cope with it successfully, one must be highly trained and carefully disciplined in many of the

*(Continued on page 29)*

Photo by Henry Schell.

**Sportsmanship as we understand it was unknown to them.**

# How Much Game on Your Hunting Area

(Continued from page 23)

areas was about equal, and the populations at the beginning of winter were about equal. The spring census revealed great population differences. The Brooksides area had 1 bird to about 34 acres, and the Spring Creek area had 1 bird to about 4.5 acres. The areas were similar from the standpoint of crops grown, amount of hedgerows, and such factors. Why did the Spring Creek area support 1 bird to 4.5 acres while the Brooksides area carried 1 bird to 34 acres? The spring population on the Spring Creek area was seven times greater than on the Brooksides area.

A detailed investigation of the method of harvesting the crops on the two areas brought out the fact that more winter food was available on the Spring Creek area. About 14 percent of the total land area of the Spring Creek area was left in hand-picked corn, whereas on the Brooksides area only 1.5 percent of the total land area was left in standing hand-picked corn. Carrying capacity is entirely a range character: the better the food and cover conditions, the greater the carrying capacity. Analysis of numerous pheasant ranges frequently shows the limiting factor to be a lack of sufficient winter food. To insure a higher carrying capacity then, and hence a greater spring or breeding population of these game birds, it is essential on such areas that enough winter food be provided to hold the birds. If this procedure is not followed, the fairly large fall carrying capacity will decline over winter. The spring population will be smaller because of the movement of the birds to better wintering areas. This may mean a temporary reduction of the population on the area.

Who is this lucky nimrod? His name slipped by us somehow.

In order to assure a desirable carrying capacity, it may be necessary to provide supplemental food patches, for example, strips of standing corn at strategic sites over the area. By these simple management practices more desirable carrying capacities may be effected.

Pheasants, like other game animals, are subject to seasonal changes of their home range. These may be classified as summer, fall, winter, and spring. Pheasants for the most part are farm-game animals, and the greater part of their food and cover is provided by farming practices. In winter there are other factors—such as deep snows, winds, and lack of cover—which affect the birds and limit the carrying capacity.

A native wild rat, the Allegheny cave rat, lives in caves and rocky crevices in portions of the Appalachian Mountains. These rats are found in Centre County, Pennsylvania. Recent population studies of this little rodent on a 1,280-acre study area indicated 1 rat to about 30 acres. Is this the carrying capacity of the Seven Mountains region for this animal?

Other rodent populations, for example, field mice, show variations from year to year, according to W. J. Hamilton, Jr. When we find a low of 15 to 40 mice to an acre during 1 year, and the population later increases to from 60 to as many as 250 an acre—does this mean that the carrying capacity is somewhere between 15 and 250? This rodent goes through a 4-year cycle and builds up rapidly after a low period. In the case of field mice, lack of predators, parasites, and disease during certain periods may be stimulii for increased populations. Weather conditions may affect the range in such a way as to make food difficult or easy to obtain. This may decrease or increase the population. The whole biotic association, rather than any single factor of the environment, is of primary importance in the distribution of these mice.

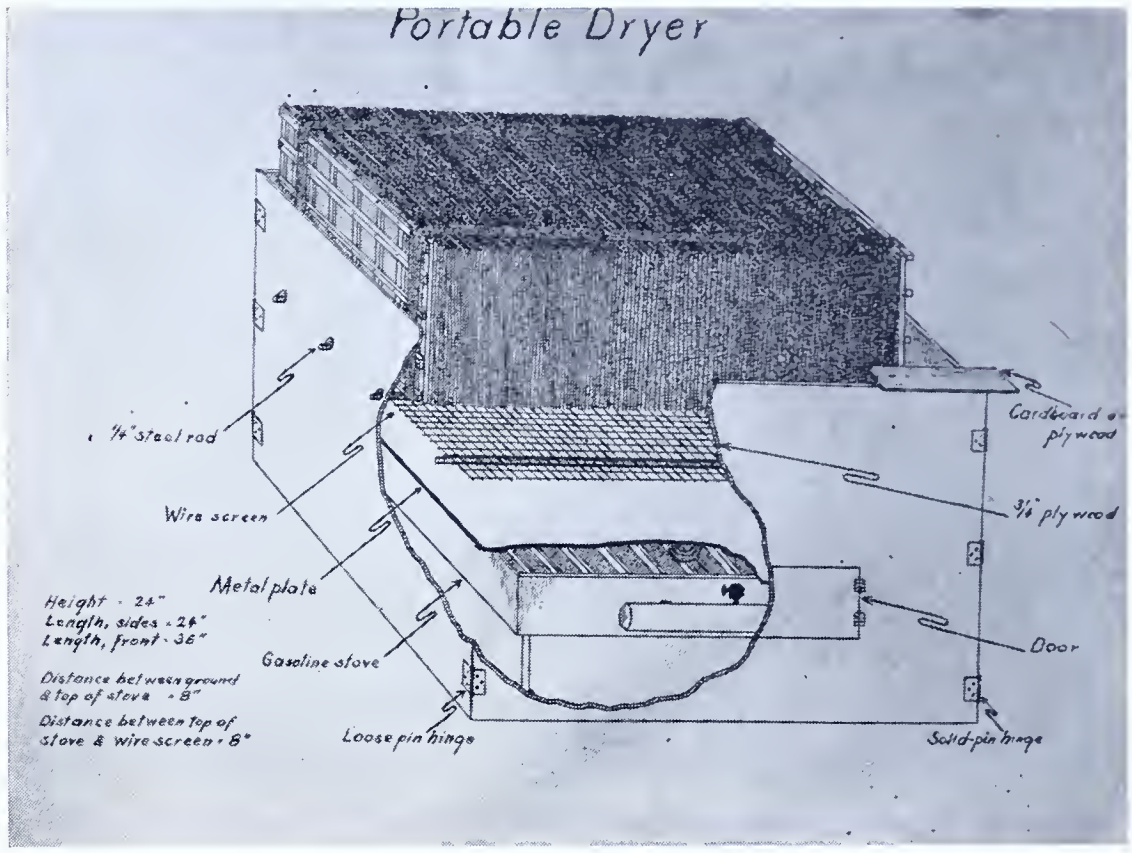
Bobwhites are important game birds in many regions. The population of quail in one section of the range may be 1 bird to 40 acres and in other areas 1 bird to 4 acres, or—under the best conditions—1 bird to 1 acres. Again it becomes necessary to analyze the ranges in question. The main limiting factors which seem to affect the carrying capacity of quail are food, cover, and weather. Under suitable environmental conditions quail may increase to a fair population in the better quail range of Pennsylvania. This build-up of quail populations in potential quail territory may jump from a small number of birds after a severe winter to a maximum of 1 bird to 4 acres over a series of mild winters. The optimum carrying capacity may never be attained because of interruption by severe winters. In southern quail ranges, winters are not so severe a check on quail and populations reach a higher figure. The carrying capacity in such areas may be improved by management of the environment so that 1 bird to an acre may be attained, as was demonstrated by H. L. Stoddard.

In discussing carrying capacity of game ranges, in many cases, have we not been calling census figures "carrying capacity"? Do we not need more detailed studies of

(Continued on page 29)

# Plants as a Hobby

(Continued from page 19)




The above homemade portable dryer consists of four pieces of ¾" plywood and can be taken apart since only two corners are joined by solid-pin hinges and the other two by loose-pin type which permits easier handling and allows it to be stored folded flat.

# Why Number The Birds?

Photo by Leo A. Luttringer, Jr.
At one time thousands of European Starlings roosted on the Capitol Dome.

February. These show direct east and west flight.

Long range flight of banded birds are topped by an Arctic tern which flew from the Labrador to Natal, South Africa, traveling over 9000 miles in four months. A kittiwake, banded in Russia June 20, 1937 was found over 6000 miles away in Newfoundland September 20, 1937. A Caspian tern banded on Lake Michigan flew to England and a great skua banded in the Shetland Islands, north of Scotland, was found in Massachusetts. An osprey flew from Delaware to Venezuela and a teal from Nebraska to Columbia.

Birds do not return to their old haunts as a general rule, and young birds rarely to the places where they were hatched. There have been numerous recorded instances to the contrary, however. A banded mallard nested in the same box on a barn in Nebraska for 16 successive years and a banded cuckoo for six years in the same box on a porch in Glenolden, Pa. A cowbird, banded at Waukeegan, Ill. April 13, 1937, was shipped to Denver, released April 28 and returned to the trap in Waukeegan May 23, 1937. It was then sent to Quebec and came back in a year. I carried a song sparrow six miles away from my station and later fifteen in another direction, and each time it was back in a few days. Some birds exhibit this homing instinct without the training of pigeons.

It is a popular belief that robins return again and again to the same locality to nest. The only way to prove this is by banding the individual birds. A protected nest on my house was occupied by six different pairs of banded robins, and neither they or their banded young ever returned to the traps in the adjoining yard. Up to the end of last year I trapped and banded in Harrisburg 133 adult robins, only 17 of which ever returned to the traps in later years; 275 young, speckled robins were trapped and banded and only 3 returned; and 133 baby robins were banded in nests within three blocks of the banding station and one came into the traps in subsequent years. Distant records for these robins came from Baton Rouge, La., Plant City, Fla., Moultrie, Ga. and elsewhere.

Song sparrows and catbirds are more apt to return to their old familiar neighborhood. I had the same song sparrow in my hand 38 times over four years, and the same catbird over four years.

Numbered bands were placed around one leg of 116 adult catbirds and 12 returned in later years. Only three of 58 catbirds banded as young returned, and none of 31 other catbirds banded as nestlings. Song sparrows were banded as follows: 185 adults, 173 fledglings and 14 nestlings, with subsequent trappings of 18 of the adults and 6 of those banded as young, and none of the nestlings. These suggest the unusualness of birds going back where they were hatched. Some adults return frequently. An adult catbird, banded in May 1936, returned in 1937, 1938 and 1941. While robins and grackles are very difficult to trap, song sparrows and catbirds go into the traps day after day for the free meal awaiting them.

English sparrows are about the only true permanent residents. Even starlings and crows migrate and move around, not remaining long in the same locality. The species of birds which we have throughout the year are migrants, the individuals seen in the winter are not the same seen during nesting time, at least in Pennsylvania. The winter song sparrows and cardinals are not the same individuals seen during summer. As an instance, a song sparrow I banded December 26, 1937 returned only on November 23, 1939 and February 1, 1941. Other records uphold this assertion.

Contrary to the common belief that house wrens return to their old nesting location, only one of my 17 banded house wrens came back a later season, and none of their 44 banded young. Other investigators may have different results. I also banded 311 adult purple grackles and 84 flying young, with only five returning to the traps in later years. Yet, hundreds of grackles migrate over my station

*Continued from page 20*

and many nest within a mile. The age of grackles is determined by the color of the eyes; the young birds of the year have brown iris and the adult a distant white eye.

The thrill of banding comes with the reports of birds being found in distant regions. Two of my black-crowned night herons, banded in the nest the same day, were found in Cuba, the first nine months after banding and the other six years later. Among my banded birds yet to be heard from are two loons, a whistling swan and a turkey vulture.

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## Conservation Education Booklets

The editor has just reviewed a set of four conservation education booklets just released by the National Wildlife Federation. The Federation sensing the need for material of this kind in the elementary grades of the public schools, asked Miss Mary Melrose, Supervisor of Elementary Science, Cleveland, Ohio; Dr. Paul E. Kambly, University of Iowa, Iowa City, Iowa; Dr. Charles W. Quaintance, State Teachers College, La Grande, Oregon; and Dr. Orra E. Underhill, State Teachers College, New Britain, Connecticut, together with a Board of Advisors from various other states to undertake preparation of it. It would take too much time and space to justly pay tribute to their efforts. Therefore, suffice it to say they did a splendid job.

Every teacher and every pupil in the Commonwealth should be the proud possessor of a set of these booklets, which are beautifully illustrated with color and halftone engravings. These books are so complete and convincing they fit immediately into social science studies.

Their titles are: *Raindrops and Muddy Rivers,* which portrays the ugly tooth marks of erosion; *Would You Like to Have Lived When—?,* which recounts the early history of America and subsequent wanton destruction of valuable wildlife; *Plants and Animals Live Together,* which explains how each are interdependent upon the other; and *Nature's Bank—The Soil,* which deals with the reclamation of the soil.

These books sell in singe sets of four books —$1.75; 50 sets, per set—$1.50; 100 sets, per set—$1.25; and 250 sets, per set—$1; and can be ordered from the National Wildlife Federation, 1212 Sixteenth St., N. W. Washington, D. C.

Blacksnake killed on some blackberry bushes in Salem Township, Westmoreland County by Game Protector A. J. Zaycosky had a rabbit inside.

# How Much Game on Your Hunting Area

*Continued from page 27*

ranges with regard to composition, availability of food and cover throughout the year, as well as methods to determine animal populations? One game animal exacts some conditions not necessary for another game animal occupying the same range. What conditions are prerequisites for each? Habitat management is essential to improve the carrying capacity on many areas for many species of game animals.

I do not believe that census figures are synonomous with carrying capacity, but many discussions and articles on carrying capacity certainly infer as much. A quail population in the North is censused in March, and the population figures obtained are given as carrying capacity for the area. To some degree it seems that carrying capacity should be determined by all characters of the area in question and not by existing population figures. Such figures may be in error with regard to carrying-capacity determination. Measuring populations and then calling such determinations carrying capacity is somewhat like the blind-folded man determining when a glass is filled by the water that runs over the edge. For instance, deer areas generally reached the maximum carrying capacity long before technicians became aware of it, and as a result, the danger point was recognized only after heavy deer losses occurred.

In the introduction of this paper I defined carrying capacity as the maximum density of animals that a particular range is capable of supporting under existing conditions.

In closing I should like to point out that we have been discussing a subject on which very little has been done in regard to wildlife. Before this subject can be intelligently discussed, we have much intensive field work to do. Thus far we have learned a little about determining populations for a few species. Much less has been done toward analyzing environment to the point where we have even faint indications as to what determines carrying capacity.

"Gosh, buddy, you gave me a scare . . . with my glasses off I thought for a minute you were my wife."

Hunting party of Big Moose Camp, Lycoming County. Front row, left to right: John J. Becker; Raymond R. Reber; Lloyd Blatt; Jack Martin; George Rubright; and Buechley Druckenmiller. Back row, left to right: Paul Dubble; Raymond Degler; William J. Stetzler; Kenneth Reider; Ray Younker; and Scott Reppert not shown on picture.

## WHAT IS A SPORTMAN?

*(Continued from Page 26)*

sciences. It is not expected of a sportsman that he qualify as an expert on wildlife, but good sportsmanship demands of him that he yield to the findings of such experts when they conflict with his interests, and that he adjust his activities to their verified conclusions.

Technical experts on wildlife and game management are not infallible. They, too, make mistakes; but they are not of the kind made by the layman in his blind groping for facts in a field of activity with which he is not in constant contact. Aided by the facilities at his command, he can readily correct his errors and thus prevent uncontrollable damage. Those who are devoting their lives to conservation and wildlife management have already proven worthy of our confidence. If sportsmen, individually as well as in their organized capacity, would follow their suggestions, we would not only get better returns from our investment, but we would avoid many of those spectacular but futile adventures which have broken the morale of some of our strongest sportsmen and conservation organizations.

For years the danger signals have been out, warning us of the deplorable state of those natural resources upon which the sports of the great outdoors depend. They have been flashing nothing but red. A crash can only be averted when those who call themselves sportsmen become what the name implies, and assumes the responsibilities that sportsmanship imposes upon them. When this happens, our streams will once again teem with fish, and there will be game enough to shoot and to reproduce in an abundance.

The third annual picnic of the Union County Sportsmen's Association was held early in July, drawing an enthusiastic attendance of between 2500 and 3000 persons from Snyder, Centre, Lycoming, Northumberland and Union Counties. Each person present donated pieces of scrap metal or rubber from which a large amount of money was realized. The proceeds were turned over to charity.

Highlights of the picnic included a taxidermy display by Bucknell University Museum and a private collection by Maynard Reitz, comprising prize moose, and rocky mountain goat specimens. A bench show encouraged 100 entries, and keen competition existed in all classes including pointers, setters, cockers, beagles, coon hounds and fox hounds. Other events included fly and plug casting, trap shooting, archery, etc. Music was furnished by the Mifflinburg High School Band. Over 100 new members enrolled during the event, bringing the total membership to 625.

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Stolen: One model 12 Winchester, 12 gauge shotgun, serial number 703812, out of a truck parked in East Pittsburgh several months ago. If located notify M. G. Shevchik, 3010 Koppers Bldg., Pittsburgh, Pa.

**OFFICIAL 1942 OPEN SEASONS AND BAG LIMITS**

(AS FIXED BY COMMISSION AT MEETING ON APRIL 30, 1942)

**(All Shooting Hours Based on Eastern War Time)**

Open season includes both dates given, Sundays excepted for game. **On October 31 no hunting of any kind before 9 A. M.** With this exception, shooting hours daily are 8 A. M. to 6 P. M., except from July 1 to September 30 inclusive, 7 A. M. to 8:30 P. M. Traps may not be set before 8 A. M. on the first day of any season for trapping in open counties. Raccoons may be hunted at night, with a noon-to-noon daily limit.

| UPLAND GAME (Small game possession limit three days' bag) | Bag Limits Day | Bag Limits Season | Seasons Open | Seasons Close |
|---|---|---|---|---|
| Ruffed Grouse | 2 | 10 | Oct. 31 | Nov. 28 |
| Quail, Bobwhite | 5 | 15 | | |
| Wild Turkey (See 10 counties closed below)* | 1 | 1 | | |
| Ringneck Pheasants, males only | 2 | 12 | | |
| Grackles (commonly called Blackbirds) | Unlimited | | | |
| Squirrels, Gray, Black and Fox (combined kinds) | 5 | 20 | | |
| Rabbits, Cottontail | 4 | 20 | | |
| Hares (Snowshoe or Varying) | 2 | 6 | Oct. 31 | Nov. 14 |
| Hungarian Partridges (2 counties only)* | 2 | 8 | | |
| Squirrels, Red | Unlimited | | Oct. 31 | Sept. 30, 1943 |
| Raccoons, by individual or hunting party: | | | | |
| Upper Zone: (17 counties)* | 2 | .. | Oct. 20 | Jan. 15, 1943 |
| Lower Zone: (50 counties)* | 2 | 15 | Nov. 10 | Jan. 15, 1943 |
| Raccoons, by trapping (See 15 counties closed below)* | | .. | Nov. 10 | Jan. 15, 1943 |
| Woodchucks (Groundhogs) | 5 | Unlimited | July 1 | Sept. 30 |
| Bear, over one year old by individual | 1 | 1 | Nov. 18 | Nov. 21 |
| Bear, over one year old by hunting party of three or more | 2 | 2 | | |
| Deer, male with two or more points to one antler | 1 | 1 | Nov. 30 | Dec. 12 |
| Deer, as above, by hunting party of six or more | 6 | 6 | | |

**NO OPEN SEASON—Hungarian Partridges (except as above noted), Sharp-tailed Grouse, Doves, Antlerless Deer, Elk, Cub Bears and Otters.**

**FUR-BEARERS**—(Traps not to be placed before 8 A. M. on any opening dates)

| | | | |
|---|---|---|---|
| Minks | Unlimited | Nov. 10 | Jan. 15, 1943 |
| Muskrats (By traps only) | Unlimited | Dec. 1 | Jan. 15, 1943 |
| Beavers (By traps only, statewide)* | 3 | Feb. 15 | Feb. 28, 1943 |
| Skunks | Unlimited | Nov. 10 | Jan. 15, 1943 |
| Opossums | Unprotected | until September 30, 1943 | |

**AN APPEAL TO TRAPPERS**—In order to avoid destroying game and injuring dogs, trappers are requested to refrain from setting traps in trails. All traps must be tagged; durable substitute for metal tag may be used.

***SPECIAL COUNTY REGULATIONS**

**Hungarian Partridges**—Hungarian Partridges may be hunted only in Cumberland and Franklin Counties. All other counties are closed.

**Turkey**—No Turkey season in Cameron. Clarion, Clearfield, Elk, Forest, Jefferson, McKean, Potter, Warren and Westmoreland Counties.

**Raccoon Hunting**—

**Upper Zone:** This zone comprises the counties of Bradford, Cameron, Centre, Clearfield, Clinton, Elk, Jefferson, Lackawanna, Lycoming, McKean, Pike, Potter, Sullivan, Susquehanna, Tioga, Wayne and Wyoming.

**Lower Zone:** This zone comprises all counties not included in the Upper Zone.

**Raccoon Trapping**—No raccoon trapping in Beaver, Berks, Butler, Cambria, Chester, Dauphin, Delaware, Jefferson, Lancaster, Lawrence, Lebanon, Luzerne, Northampton, Schuylkill and York Counties.

**Beaver Trapping**—Beaver trapping in all counties. **Non-Residents may not trap beavers in Pennsylvania.** One person may set, tend or operate 10 traps only. Persons trapping beavers are required to keep the trap tags above ice or waterline to facilitate identification without disturbing the traps. To expedite the tagging of beaver pelts as required by law, trappers are requested to have them tagged in the district or county in which taken.

**Snares**—No counties open to use of snares this winter.

**FEDERAL SEASONS MIGRATORY GAME BIRDS—**

| | | | |
|---|---|---|---|
| Rails and Gallinules (Except Sora and Coot) | 15 combined kinds | Sept. 1 | Nov. 30 |
| Sora | 15 | Sept. 1 | Nov. 30 |
| Woodcock (Possession Limit—8) | 4 | Oct. 24 | Nov. 7 |
| Wild Ducks (See Restrictions) | 10 | | |
| Wild Geese | 2 combined kinds | Oct. 15 | Dec. 23 |
| Coots (Mudhens) | 25 | | |

***RESTRICTIONS**—Daily bag limits—DUCKS: 10 in the aggregate, may not include more than 3 Redheads or Bufflheads, or 3 of these combined species, and 1 Wood Duck.

**POSSESSION LIMITS**—Ducks, Geese, Brant and Woodcock: Twice the daily bag (except on opening day). BUT ONLY ONE (1) WOOD DUCK MAY BE POSSESSED AT ANY TIME. All other migratory birds: One day's limit only. Possession limited to 30 days after season.

**SHOOTING HOURS**—(Eastern War Time)—Migratory game birds: From beginning of respective seasons to Oct. 30, inclusive, sunrise to sunset; Oct. 31, 9 A. M. to 6 P. M.; Nov. 1 to end of respective seasons, 8 A. M. to 6 P. M. (unless sunrise occurs later or sunset earlier, when Federal sunrise-sunset regulations automatically apply.)

# Our Ducks

*(Continued from page 13)*

3. Prevent excessive seepage by using materials that are not porous.

4. Guard against rapid silting of the dam, by having it fixed so that they can easily be cleaned.

As for the artificial propagation of ducks for restocking, to my mind this would be a waste of money, because the wild stock will take care of themselves if they are given protection and a place in which to reproduce. Much rather we should spend money on the improvement of the environmental factors and controls. Let us restore more of the natural breeding grounds and after we have restored them let us see to it that they are not destroyed again. Let us try to improve the food and cover around our breeding areas and on the resting places on the flyways. Let us continue to set the shooting seasons with the break in favor of the ducks.

**Game Protector Frank E. Couse, DuBois, submitted the above photo of an orphan baby raccoon which was adopted by a mongrel dog that had pups of her own at the time.**

## With Us Always They'll Remain

They go away for good you say,
The pals we've been with every day,
Our dogs, so loyal and so true,
Our friends in joy and sorrow, too,
That ne'er rebuke and never blame,
That love us always just the same.
When they must die and pass away
And in the earth their forms decay,
You think we must endure the pain
That never we'll see them again?

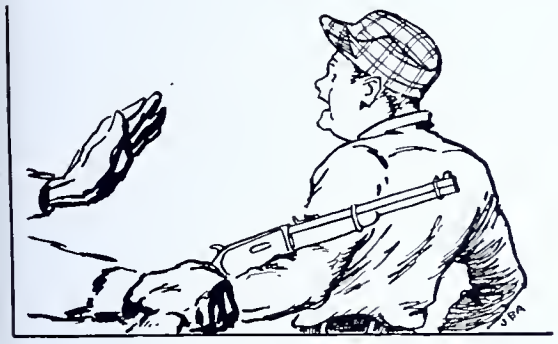
I do not think that God above
Who's Perfect Love and knows all love,
Noting the sparrows when they fall,
Who made all things and loves them all,
Who formed strong ties twixt dog and man,
Will sever what He here began;
But in another world than this,
Where all is happiness and bliss,
I'm sure we'll have our dogs again
And with us always they'll remain.

Lurena G. Wallace, Princeton, N. J.

(Written on the death of Sheila O'Boyne, Irish Setter.)—*Animaldom*, Oct. 1941.

# Sizing up the Game Law

*Continued from page 5*



Revocation of Hunting Rights.

party could kill the camp limit of six deer, so long as no individual hunter participates in any manner in the killing of more than the camp limit.

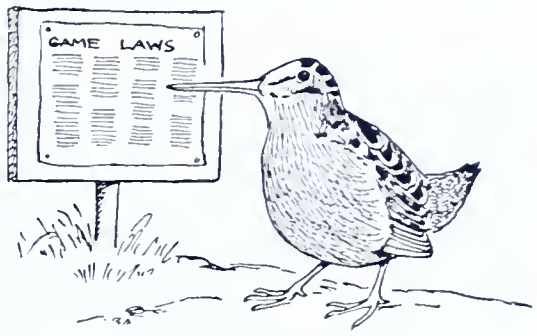
If every deer hunter will personally assume the responsibility of refraining from taking part, in any way, in the killing of more than the camp limit of six deer a season, he need have no fear of violating the law that regulates big-game hunting parties. He must also refrain from attempting to kill a second deer a season, and should not place himself in any questionable situation wherein he might reasonably be accused of such attempt.

### Revocation Of Hunting Rights

Many hunters do not seem to realize that their hunting rights can be denied for violations of the Game Law, whereas, this privilege can by law be revoked for from one to two years for the first offense, and for longer periods for subsequent offenses. However, final action in this respect must come from the Game Commission at Harrisburg. No field representative of the Commission has authority to promise a convicted offender, regardless of how trivial may be the offense, that his right to hunt or trap in the future will *not* be revoked. The officer may make appropriate recommendations, but final determination rests solely with the Commission.

### Observe The Law

By the exercise of reasonable precaution, it is a comparatively simple matter to habitually observe the Game Law and thus promote for ourselves and our children better hunting conditions—something akin to a Hunter's Paradise in Pennsylvania—where one may venture afield with dog and gun with a sense of assurance that the game he seeks for pleasure will be there. Game laws are made to conserve wildlife, and to give all an equal chance to enjoy the sport. It is the sportman's duty to cooperate so there will be good hunting, not only today, but tomorrow.




Observe the Law.

# FOX HUNTING NOTES

*By W. Newbold Ely, M.F.H.*

One of the U. S. Intelligence tells of how the Germans make their sentries stand with the point of their bayonet under their chin so that if they nod they get pinked.

But what interested us most was the report that these Commando raids have only been successful in the areas where the Germans have not used sentry dogs. In other words, it is the same story as in France where men have eluded the guards but never the dogs.

The irony of the French and Belgium situation is that many of the dogs the Germans are using are *bouviers,* developed by the Belgians, used in their army, and then taken by the Germans with most of the other animals of the countryside.

This week the German occupation authorities in the Netherlands ordered all dogs over eighteen inches turned over to them. From these they will select those which are suitable or already trained for army dogs.

It is interesting to note that descendants of the old otterhound have done very well in our Army—viz. airedales. A great fancier of this breed who has had the same strain for over a quarter of a century is that well known foxhunter, Walter Jeffords, who even preserves the black and tan of the airedale in his famous pack of black and tan hounds.

The Rose Tree Hunt has turned over its facilities to "Dogs For Defense," and Mr. Jeffords, president of the club, patriotically presented a young airedale to be trained for the U. S. Army. Donate dogs or dollars. Write—Dogs For Defense, c/o The Penna. Game News, Harrisburg, Pa.

# What Happens to Your Ammunition Tax?

*Continued from page 9*

Every turkey county was covered, the location of all known flocks mapped, and their numbers, date of last observation, liberation points of pen-reared birds and other pertinent information assembled. It is not a wholly accurate census, of course; but Virginia now knows closely enough for practical purposes how many turkeys it had on a given date, how many acres of range was available per flock and the number of birds in it.

Along with this project goes a stomach analysis, with five hundred sets of innards a year being turned in for laboratory examination. That brings up another limitation on the expenditure of Pittman-Robertson funds: the research projects which meet approval. Research, as plenty of hunters realize, can sometimes get out of hand and away from the point of interest. It can, in other words, have a lot of academic meaning, but danged little for the lad who wants more to shoot at. So all research under the program must tie right in with game restoration and not let itself ramble all over the place. That's what the study of Virginia turkeys' food habits is doing: coming right down to brass tacks. So when populations, their distribution and what they need by way of food are put alongside the annual kill—which isn't difficult to determine for any species in any state with an adequate field force—and then when typical areas are sampled for population trends, Virginia can be well on its way to harvesting its turkey crop with an eagle eye to the future.

WHAT the drought of the early 'thirties did to South Dakota was plenty. The loss of pheasant food and cover practically wiped the birds out of the state's western counties. With better rainfall in recent years the habitat came back, but how to repopulate it with ringnecks was something else again, because game-farm operations on such a scale as would have been needed would run into big money.

However, there was the Sand Lake National Wildlife Refuge with an abundance of pheasants. And there was Pittman-Robertson money for the proper asking. So, in 1941, South Dakota set up and was granted approval for the biggest pheasant-trapping and transplanting program ever heard of. On the 20,000-acre refuge a total of 8440 birds were trapped and released in areas where the exotic had perished along with the drought-stricken corn crops. They didn't cost from two bucks up, as any game-farm bird will cost if the management knows its way around ledgers. They cost less than 44 cents per bird! And more than that: those cocks and hens weren't any pen-reared darlings. They were tough old bruisers with plenty of know-how about getting along on their own. Pheasant shooting western South Dakota is well on its way back. Without Pittman-Robertson help it would be a memory.

Colorado was plagued by too many deer in certain places, a tribulation which is common to too many states today. Financed by the Wildlife Restoration funds, censusing drives were instituted on specific mule-deer ranges to find out just how many individuals were trying to make a go of it on how many acres. With that as a starter, snow-trailing was resorted to in order to determine what, how much and in what proportion of what's on hand a Colorado deer eats. These trailing studies, geared in with stomach analyses and added to the information turned up by establishing food plots and measuring the amount of annual growth

*(Continued on page 32)*

# What Happens to Your Ammunition Tax?

*Continued from page 31*

present in the fall and again in the spring after a winter of browsing, gave a clear and sharp picture of what and how much and in what sort of mixture a deer has to have to make it through tough weather.

Knowing the population and the acreage and what grows there, Colorado is in shape to tell hunters just about how many deer should come out of a given area on pack-horse or running-board to keep the herd producing to capacity, not threatened by over-shooting and not in danger of drastic losses due to starvation. Land acquisition for game, making possible the removal of sheep competition for food stocks, ties in with this program.

AND here again we encounter another one of those by-products which Pittman-Robertson activity is dropping in our laps. The Colorado deer studies have knocked most of the old convictions into cocked hats. The opinions of Colorado hunters, for instance, about what a mule deer eats were away wide of the mark. The deadliness of feeding hay to deer in distress—a standard proposal by hunters when browse get short—was demonstrated. Up to date, it appears that 80 percent of a Colorado deer's diet must be browse, or he'll fold up and pass out.

Colorado sportsmen estimated that in one area the sex ratio was one buck to fifteen does. The actual count showed it was one to three. These items all add up to the conclusion that, much as we have talked about sound game management in the last few years, most of us have just been guessing about fundamental facts. Few states have had anything sound on which to base a management program. Well, they are getting it now!

Not so long ago the North Carolina Conservation Department came into possession, through a transfer of state school lands, of 90,000 acres of coastal plain in the vicinity of Wilmington. Ninety thousand! Count 'em! It is brushy swamp land with occasional ridges covered with pine and best suited for the production of wildlife. Some duck feeding grounds were here, and a few turkey and deer and bear. But it was going to cost a lot of money to protect it from fire and back up strategic water for ducks, and do all the other things that needed doing to make it a corner of a hunters' paradise before too many hunters have put away their guns for the last time. Pittman-Robertson money was the answer, of course. The whole works is set up as a game-management area, and part of it will remain refuge after the development work has resulted in sufficient restocking, when vast portions of it will be open to the guns.

And speaking of water, there's Missouri, a state shy on water in spite of mighty rivers and its corner of the Ozarks. There isn't enough natural water to accommodate the ducks that would like to tarry there, nor enough for a big population of furbearers, nor even for song birds during some migrations. Well, this grand Federal aid program is helping remedy that.

Using Pittman-Robertson cash and cooperating with the Soil Conservation Service, Agricultural Extension Service and AAA, Missouri set out to establish five hundred artificial farm ponds of from a quarter of an acre to two acres where run-off water may be held. Each pond must be eight feet deep to defy the forces of evaporation; every one is fenced to insure the banks and dam against damage from stock. Cattle have a stable supply of water below the dams, aquatic plants are being established, upland game finds what it has to have in the vicinity and, as an added feature, the Missouri Conservation Commission is stocking the most desirable with game fish. Without funds to supply pipe and excavating equipment and to finance the demonstration work, such a program would have been in the dim future for Missouri. As it is, the folks down there have set their sights for a pond to every farmed forty acres!

**Financial Status of Pittman-Robertson Program, July 1, 1938 to April 30, 1942**

| State | Total Funds Available Federal-State | Total Expend. and Present Obligations |
|---|---|---|
| Alabama | $150,066.82 | $115,483.58 |
| Arizona | 198,689.86 | 188,512.75 |
| Arkansas | 114,102.80 | 70,093.22 |
| California | 408,687.22 | 322,604.49 |
| Colorado | 251,562.18 | 203,603.76 |
| Connecticut | 25,907.01 | 22,235.72 |
| Delaware | 13,335.94 | 12,007.64 |
| Florida | 129,089.42 | 92,229.16 |
| Georgia | 138,714.17 | Ineligible |
| Idaho | 196,044.35 | 195,220.79 |
| Illinois | 283,129.82 | 180,170.60 |
| Indiana | 312,911.80 | 252,234.80 |
| Iowa | 194,419.69 | 142,269.24 |
| Kansas | 179,896.25 | 121,048.22 |
| Kentucky | 128,334.46 | 59,268.89 |
| Louisiana | 133,097.47 | 53,941.74 |
| Maine | 114,688.05 | 71,560.56 |
| Maryland | 64,619.34 | 47,720.82 |
| Massachusetts | 59,333.92 | 38,006.36 |
| Michigan | 535,571.09 | 385,690.96 |
| Minnesota | 291,648.58 | 240,818.36 |
| Mississippi | 148,887.80 | 129,742.36 |
| Missouri | 226,262.86 | 174,351.20 |
| Montana | 286,747.94 | 179,477.78 |
| Nebraska | 214,354.68 | 163,640.32 |
| Nevada | 179,687.79 | Ineligible |
| New Hampshire | 47,460.03 | 33,600.51 |
| New Jersey | 96,266.36 | 76,999.39 |
| New Mexico | 208,798.80 | 96,841.28 |
| New York | 490,167.35 | 352,645.51 |
| North Carolina | 183,216.05 | 172,467.51 |
| North Dakota | 131,548.77 | 83,011.19 |
| Ohio | 410,641.66 | 237,279.75 |
| Oklahoma | 171,147.02 | 145,628.68 |
| Oregon | 207,288.08 | 100,609.20 |
| Pennsylvania | 490,304.97 | 433,078.41 |
| Rhode Island | 7,252.79 | 5,903.22 |
| South Carolina | 108,612.28 | 97,553.29 |
| South Dakota | 156,410.29 | 154,940.30 |
| Tennessee | 116,586.77 | 98,760.51 |
| Texas | 495,984.48 | 420,411.97 |
| Utah | 174,646.24 | 170,988.88 |
| Vermont | 44,016.96 | 17,666.16 |
| Virginia | 157,309.94 | 150,024.34 |
| Washington | 240,977.16 | 216,969.23 |
| West Virginia | 144,057.74 | 113,588.62 |
| Wisconsin | 262,893.43 | 222,641.80 |
| Wyoming | 167,954.85 | 144,851.19 |
| TOTAL | $9,493,333.33 | $7,008,394.26 |

What follows forest fire? What sort of growth combinations come up when a given type of fire runs through a given type of timber? Nobody knows. In quail country the Stoddard study has turned up much bedrock information on the point, but for the country at large anybody who gives you an answer is away out on a limb.

And what will follow fire is an important item, with burning-for-game getting to be more than talked about in a dozen states. Michigan had wanted to know for years, because the state's forest fire fighters are getting so effective that too much of the cover is getting too thick for game and some fire-created openings appear to be past due, the ax being an expensive tool for such operations. Michigan, however, had not found the money for such an investigation until the Pittman-Robertson fund became available. Then out into the field went a man trained to know soils and cover. He digs into fire history, considering what was burned, what soil it grew on, what the temperature, humidity and wind velocity were at the time of the fire; in other words, he assembles all the factors that might have influenced the nature of the burning. Next, he surveys what came up, how thick and how fast and in what proportions it grew. Before you know it, Michigan will have a clear idea of what sort of growth to expect after a given type of fire in a given type of cover, and that's important when planning to create more mating and feeding and resting grounds by controlled burning, because each species makes exacting demands on environment.

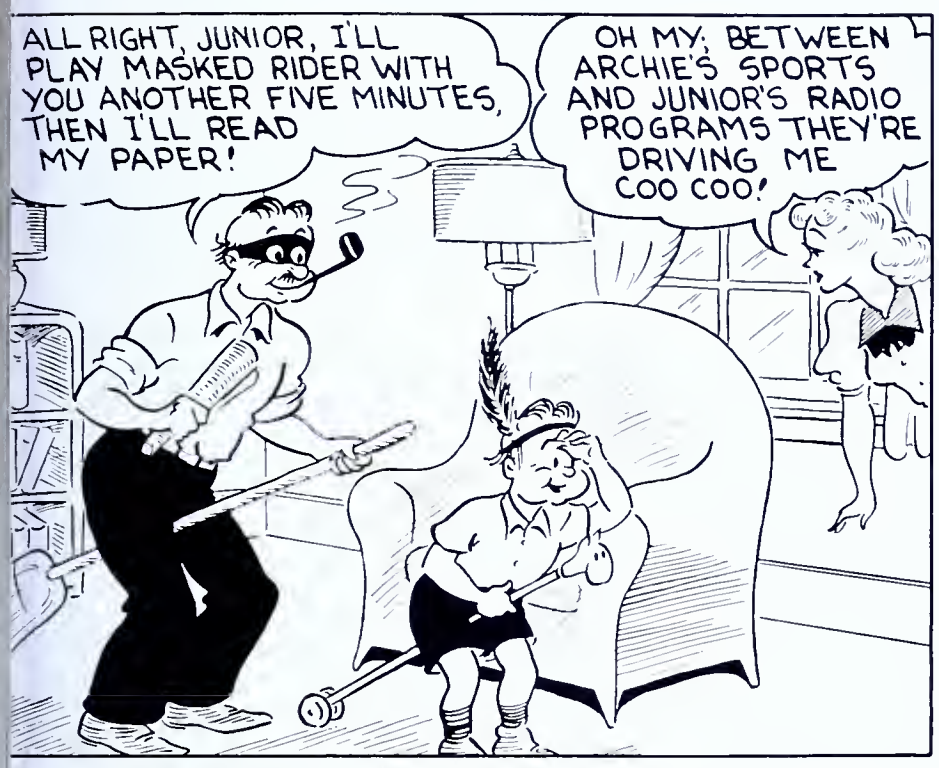
Then there's Maine, with a big survey of its waters just to see what they were and what might be done to increase their capacity for producing game and fur. The job started in 1939 and is still booming, but improvement didn't wait for the completion of the study. As soon as places adapted to improvement were located, new projects were set up and financed from Washington. Water was stabilized, duck foods were planted, and black ducks and ringnecks coming to breed were made happier and more productive. Don't overlook that reference to the little ringneck. Nobody guessed they nested in Maine in numbers before this study was set up, but they do, and it is something to know for a state that's spending thirty thousand bucks a year, or thereabouts, of Federal money to make its water carry more game.

Hop west again and consider the mountain-sheep restoration endeavor with Colorado, Wyoming and Idaho, the U. S. Forest Service, Fish and Wildlife Service and National Park Service all geared in snugly on the job. It is the first time such an integration of various agencies has come about, and makes a real start at cooperative endeavor between several states and Federal agencies. It never could have been without those dimes from the hunters.

The projects mentioned are a few of hundreds. They are set down here, not because they are all unique, but because they are typical of many others. They indicate, however, that the American conservation movement has come of age; it is mature and no fly-by-night activity. It is growing in breadth and depth, and firmly rooted in the needs of the sportsman.

"The projects are always devised and set up by the states themselves," says Ira Gabrielson who, by virtue of being chief of the Fish and Wildlife Service, functions in the program as the competent, dependable and respected big brother of every game commissioner in the land. "All the Service wants to do is see that the activities conform to the spirit of the act. Our men are instructed never to interfere, but to leave no stone unturned to lend a hand."

They are doing just that. And the states, with two exceptions, are doing their share. After five years of progress, the possibilities of the program are commencing to emerge in sharp outline. By following it, we are bringing a happy hunting ground down to earth!


ALL RIGHT, JUNIOR, I'LL PLAY MASKED RIDER WITH YOU ANOTHER FIVE MINUTES, THEN I'LL READ MY PAPER!
OH MY; BETWEEN ARCHIE'S SPORTS AND JUNIOR'S RADIO PROGRAMS THEY'RE DRIVING ME COO COO!

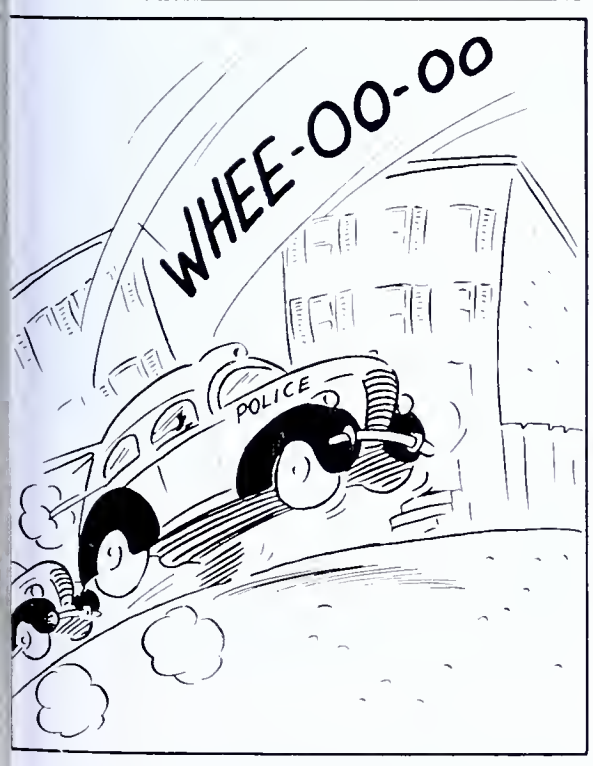
R-RING

THIS IS ED FIN-DID YOU FORGET THE TRAP SHOOT? --GRAB YOUR GUN AND HURRY OVER HERE AS FAST AS YOU CAN, WE'RE WAITING FOR YOU!
OH GOSH, I FORGOT ALL ABOUT IT - I'LL BE RIGHT OVER!

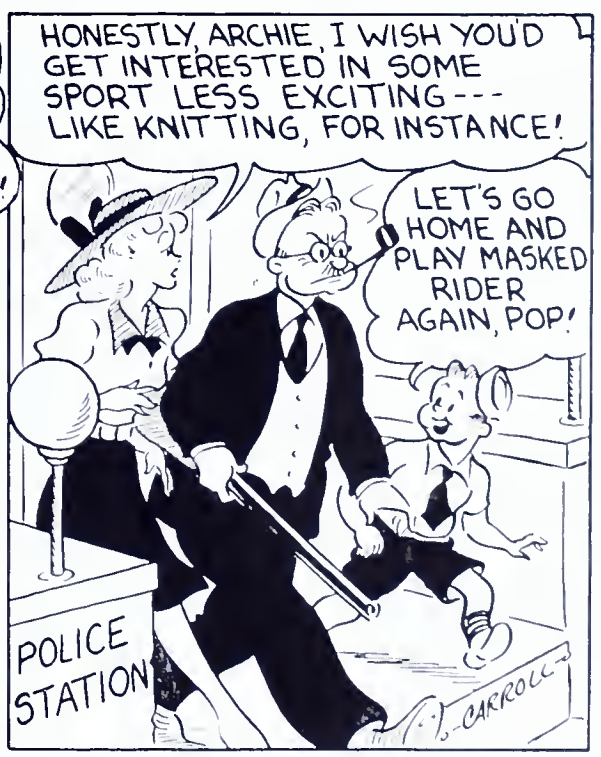
I GOTTA GO TO A TRAPSHOOT-I'LL BE BACK LATER-GOODBYE!
WELL, OF ALL THE--
SWISH
IS PAPA IN A HURRY, MAMA?

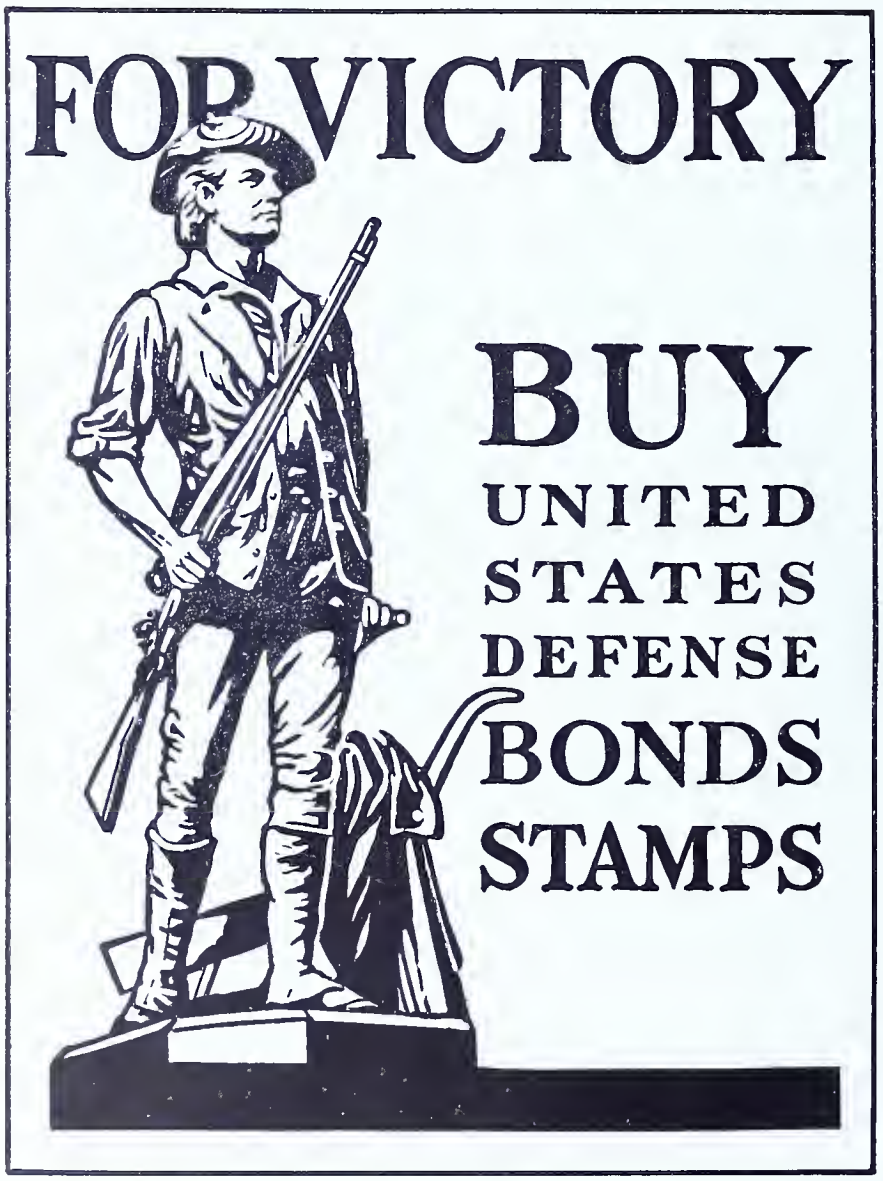
BY GOLLY, I LEFT HOME SO FAST I FORGOT MY MONEY, I'LL HAVE TO STOP AT THE BANK!

A HOLDUP! EEK!
CALL THE POLICE!
TURN IN AN ALARM!
20TH NATL BANK
?
HUH? OGEEOGOSH! I FORGOT TO TAKE OFF MY MASK!


WHEE-OO-OO
POLICE

HEY TRUDY-WILL YOU HURRY OVER TO THE POLICE STATION AND HELP ME DO SOME EXPLAINING!


HONESTLY, ARCHIE, I WISH YOU'D GET INTERESTED IN SOME SPORT LESS EXCITING--- LIKE KNITTING, FOR INSTANCE!
LET'S GO HOME AND PLAY MASKED RIDER AGAIN, POP!
POLICE STATION
CARROLL


FOR VICTORY
BUY
UNITED
STATES
DEFENSE
BONDS
STAMPS

# PENNSYLVANIA GAME NEWS

P38.34 1.6

OCTOBER 1942 TEN CENTS

# PENNSYLVANIA GAME NEWS

PUBLISHED MONTHLY BY THE PENNSYLVANIA GAME COMMISSION, HARRISBURG, PENNSYLVANIA

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VOL. XIII, NO. 7

# EDITORIAL

OCTOBER, 1942

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## AIDING NATIONAL DEFENSE

Federal authorities are asking that, wherever possible, we fill our cars to capacity when travelling to and from work in order to conserve gas and rubber.

This admonition should also apply to our recreation, as well as our employment, and should certainly be followed during this hunting season. Where longer trips are desired, every advantage should be taken of either bus or rail facilities.

This means also we'll have to do more hunting in our own "back yards." But, maybe the change will do us good, maybe the sport will be even better.

Throughout the years most of us, either because we tired of hunting in our own community or liked to explore other fields, travelled far from home. Due to the easy, quick way available for travel, a lot of us actually traded hunting grounds with the other fellow.

Many of us have been going year after year to favorite places in adjoining counties. We probably didn't have any more fun or get any more game, but we became more widely acquainted and many fine friendships resulted.

This year in the interest of National Defense let more of us stick nearer home. We'll get just as much recreation, maybe more, and save gas and tires for Uncle Sam. We've got to win a war if we want to retain our liberties, and continue to enjoy such fine sports as hunting and fishing.

### RESERVE DEFENSE CORPS AUXILIARY

And while we're on the subject of defense let us remember that there's a place for us in the Reserve Defense Corps Auxiliary, which was established sometime ago by order of Governor Arthur H. James.

This Corps provides for the organization of one or more companies in each county, each to have one Captain, one First and one Second Lieutenant, and 60 enlisted men. All equipment, which includes a rifle, shotgun or revolver, ammunition, heavy shoes, rubber boots or galoshes, rain coat, grey felt hat, flash light, riot stick and field glasses if possible, must be furnished by the men themselves.

The duties of these Reserve groups are, in order of their priority, guarding such installations as water works, electric power stations, telephone installations, aerial communications, bridges, public buildings, post offices, etc. Units may also be required, if necessary, to assist in traffic control in case of evacuation.

Here's your chance to do your bit. To date 53 counties have formed at least one company, some of which have begun to drill. Some counties having a larger number of vital installations have formed two or more companies. Come on sportsmen, do your stuff!

## BUY WAR BONDS AND STAMPS

Photo W. L. R. Drake

# FALL

*By George 2. Dresch*

The time o' year
I love is here,
The grouse and quail are flyin',
O'er hill and dale
A dreamy veil
Of purple haze is lyin'.

The trees are clad
In colors glad,
Rich russet, red and yellow—
The orchard ground
Is covered round
With apples, ripe and mellow.

The corn shocks stand
A silent band
Their golden wealth concealin',
While 'twixt the rows
The pumpkin glows
Ruddy and ripe for peelin'.

From cider mills
Gush amber rills
Of palate-tingling pleasure,
The grape vines hold
A spicy load
And brown nuts heap the measure.

O, ain't it grand
In all the land
When earth her wealth is givin'—
The bracin' air
Is keen and rare
And life is worth th' livin'!

# Your Brother's Keeper

*By Ross L. Leffler**

NO greater personal challenge, or moral responsibility, was ever placed upon the shoulders of mankind than that imposed upon each one of us by our Creator, of looking after and helping our fellow man. This applies no matter who we are, where we are, or in what field of endeavor we are engaged.

It applies in the field of sports, particularly in hunting, when thousands of enthusiastic persons go afield, each armed with a lethal weapon capable of bringing either much joy or sorrow, depending upon how it is used.

Every hunter should always be concerned for his own safety and the safety of the other fellow; but this year, more than any other time in our national history, this concern should have added significance.

Naturally we want always to maintain that carefree spirit that has made us such a splendid Nation, but we dare not allow that spirit to get the better of our good judgment. We must realize that every person killed or injured accidentally these days means not only a personal loss to someone, but a loss to the cause of free humanity—the cause for which we are all fighting so valiantly—to which we are contributing so unselfishly.

Let us each resolve now that neither through our own carelessness nor over-enthusiasm shall any of us be responsible for injuring a fellow hunter this season. The fellows who go afield this year are needed on the home front, every man-jack of them. They are working long hours every day, hard work to keep the mills grinding. They are all experts at their various tasks, and they are, most of them, husbands, fathers, brothers, whose productive and earning powers are needed. None can be spared.

Every person injured today in mill, mine, factory, or even while enjoying much needed recreation, slows up the defense program just that much more. Every hour and every day lost needlessly on the home front may mean the loss of many lives of our brave, heroic sons on the battle front. Today eternal vigilance and safety must be the by-words in every industry. It must also be so in hunting.

Watch that gun! Watch your step! There is hardly need for pointing out how hunting accidents happen. We *know how they happen!* What is still more important is knowing *how to prevent* them from happening.

Automobile accidents have decreased materially because of enforced slow driving. Motorists are beginning to recognize the fact that hurrying and careless driving never gets them very far. True, they realize also the fact that gas and tires are important; but I firmly believe that they are now more fully aware of the fact that hundreds of lives have been spared in recent months because people generally have become "care-conscious."

And so it is with guns. Guns are dangerous at all times, but especially so when in the hands of the careless, the inefficient, the over-enthusiastic. They don't just up and shoot you or someone else of their own accord, any more than an automobile hits a man, or a child, or another automobile. *You*, not your gun, are the responsible factor.

**Don't pull your gun through a fence by the barrel.**

Let us remember that every minute this season. *Let us actually be our brother's keeper!* Never shoot when your companion or some other fellow may be in the line of fire. It doesn't pay to get excited and bang away at anything and everything that moves, or to try to beat the other fellow to a shot. Better to pass up many shots than to take a single chance on injuring someone.

I saw the motion picture recently released by the Arms and Ammunition Manufacturers Institute on "The Making of a Shooter." Probably you have, too. If not, get your club to schedule it soon. Three of our Supervisors (Messrs. Heffelfinger, Englert and Golden) now have prints, and the others will receive copies shortly. We also have a sound copy in the office which we'll be glad to lend when not already booked. In this splendid picture you will see vividly portrayed what the safe handling of a gun means; how easily accidents can occur; how easily you can prevent them if you use good common sense.

**The only safe gun is the gun safely pointed.**

Be careful when crossing fences, logs, ditches, or even when stepping on stones. It pays to "break" or even unload your gun when crossing fences; and a log, a loose stone, or creeping vines may trip you up for a bad fall, or cause you to shoot yourself or your buddy. Keep loaded guns out of your cars, your homes, your camps. Unload them when you are resting or eating your lunch, and don't place them where your dog might accidentally knock them over. If you are going to stand around and review the incidents of the day for awhile, it will pay you to unload them. You will feel safer, especially if anyone should pick your gun up and finger it while your head is turned.

Keep it clean, and make sure no wadding, plug, or dust cloth is in it when you fire. And know your terrain. In this way you will be making it safer for the fellow just over the hill or on the other side of the brush. Be careful when shooting at game that scurries for little draws or ravines. Some other chap, unseen, may be working his way up them towards you and get the full load of your shot.

Never crack a bunny's neck over your gun stock or add the coup de grace to a wounded squirrel with the barrel of your gun. These careless practices cause accidents every season. Be careful when handing a firearm to anybody, and never pull one toward you by the barrel. This is often done getting in and out of automobiles, or boats, with dreadful results.

Above all, use a good safe gun—your own if possible. If you must borrow one, or buy a new one, try it out at an approved target before going hunting. Get *thoroughly acquainted* with the gun and its operation before going afield. Be certain you know how to operate its mechanical safety, and don't place too much confidence in any mechanical device. Be sure the gun you borrow is in good working order, that there is nothing loose about it. I have seen some with broken stocks, badly bent barrels, forearms wired on, etc. If you have a gun with damascus barrels you better put it up over the mantel, because the loads they make today are too heavy for them.

Agree beforehand who is going to pepper the rabbit that's hiding in the brush pile before you kick him out—you or your buddy. Neither one of you wants to be on the receiving end of a charge of shot.

For safety, wear plenty of bright red always. A red felt hat or some red cloth on the shoulders makes a splendid identification mark, even at great distances. However, it pays well when hunting through woods or heavy brush to "mark other hunters down" so that neither you nor they are likely to be in line of fire. Sometimes, particularly when the leaves are changing and sumac is at its height, colors blend easily, so don't depend entirely on the red you wear.

*(Continued on page 28)*

* President, Pa. Game Commission.

# GAME AND WILD-FUR PRODUCTION AND

One of the most exhaustive and interesting analyses of the game and fur-bearing animal management programs in this country ever made has appeared in the form of circular No. 636 of the U. S. Department of Agriculture. The title of this publication is "Game and Wild-Fur Production and Utilization on Agricultural Land". The authors are J. Paul Miller, of the U. S. Fish and Wildlife Service and Burwell B. Powell, of the Bureau of Agricultural Economics, U. S. Department of Agriculture.

The circular, which in essence is a report of an investigation of Nation-wide scope conducted by the aforementioned individuals in 1936 and 1937, embodies 58 pages of the most complete factual information concerning this highly complex subject that has ever been amassed before. Well illustrated, and with an interesting selection of comparative tables, it is a publication which all sportsmen and landowners should read and read carefully if they are to plan or cooperate with their respective Game Departments in providing a future adequate supply of wildlife.

Because of the complexity of the whole problem it would be very difficult to condense the contents of the publication in any other manner except by excerption and quotation. Even then space may not permit the editor to cover all of the highlights.

In a brief foreword W. L. McAtee, Technical Adviser of the U. S. Fish and Wildlife Service, says, "The authors show that more than 85 percent of the huntable land is in private ownership or control and that economic necessity for its most efficient use reduces wildlife production to an incidental, if not accidental, status.

"Demand being greater than ever before, this situation is a matter of concern for hunters and game officials. They have made attempts to encourage the increase of wildlife upon farms but have not succeeded in developing any plan satisfactory enough to gain wide acceptance.

"What the farmers desire more than financial return is freedom from trespass annoyances, safety for themselves and their possessions, and control of hunting upon their lands. The realities of farm wildlife problems are for the first time adequately presented in this publication, which should go far toward insuring more rational handling of the wild-animal resources of our agricultural lands."

**Introduction**

"The principal objectives of the study upon which this circular is based were to (1) ascertain how much income a farmer or rancher can expect to realize from wildlife or from game management, (2) get a comprehensive picture of the measures each State is using to provide a supply of wildlife, (3) discover or formulate biologically and economically sound principles which will serve as a basis for wildlife conservation programs acceptable to farmers and wildlife conservationists, and (4) ascertain the feasibility and practicability of a fuller use of farm and range lands in the production, utilization, and perpetuation of wildlife coincident with the improvement of agricultural conditions.

"The project agreement and outline were approved in March 1936 and field work was started in June. The first year was devoted to a reconnaissance survey of the United States, designed to evaluate the problems involved in making wildlife a supplementary farm enterprise and to select representative areas for detailed study. Conferences were held in each State with representatives of the agricultural colleges, agricultural experi-

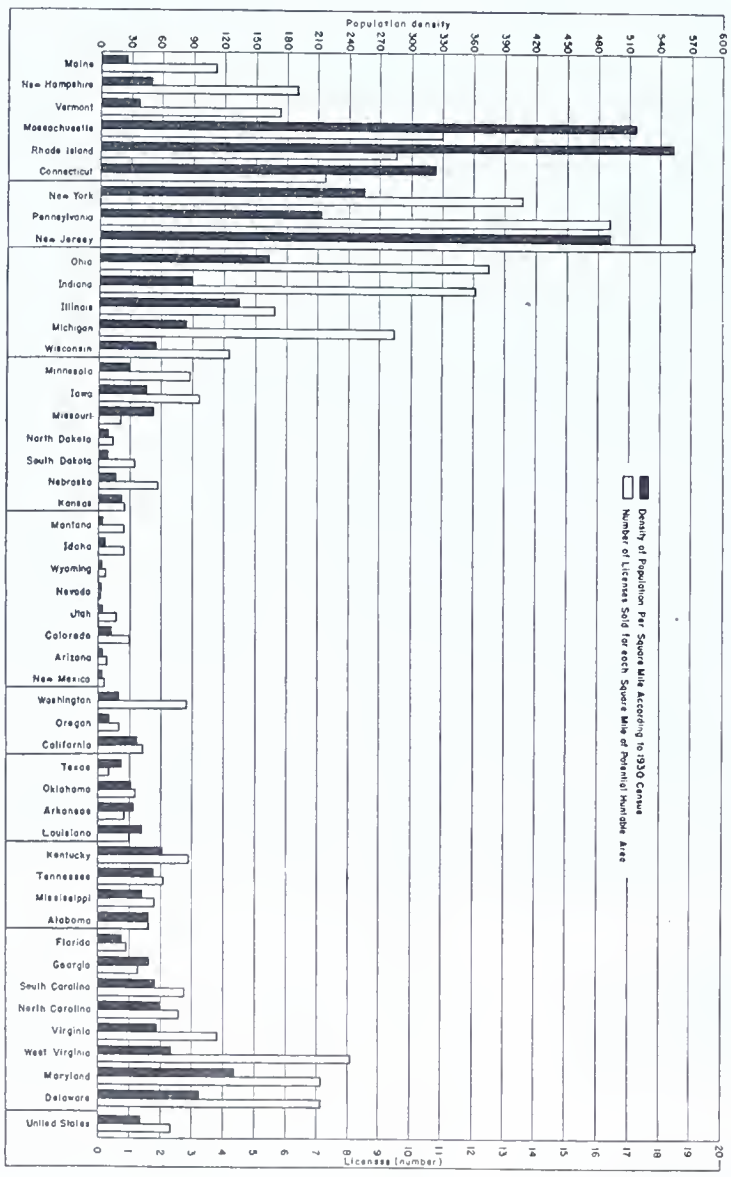



FIGURE 1.—The density of population compared with the number of hunting and trapping licenses sold per 1,000 population.

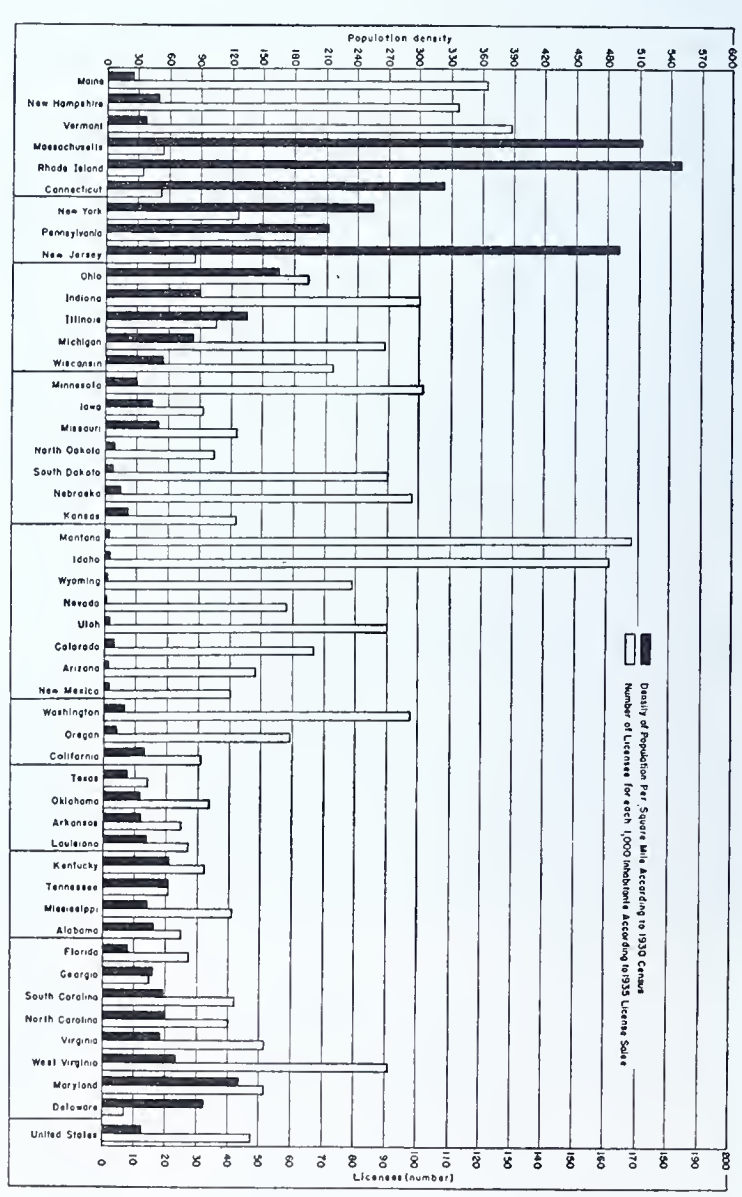



FIGURE 2.—The density of population compared with the number of hunting and trapping licenses sold per square mile of potentially huntable area.

Figure 1.—The density of population compared with the number of hunting and trapping licenses sold per 1,000 population.

Figure 2.—The density of population compared with the number of licenses sold per square mile of potentially huntable area.

# UTILIZATION ON AGRICULTURAL LAND

**Excerpted and quoted by the editor from a pamphlet by J. Paul Miller, U. S. Fish and Wildlife Service, and Burwell B. Powell, U. S. Dept. of Agriculture.**

Photo W. L. R. Drake

Upgrown fencerows provides food, cover and travel lanes for wildlife.

ment stations, universities, game departments, planning boards, and other interested State and Federal agencies, farmers' organizations, sportsmen's organizations, and individuals interested in the problems of land use, farm management, and conservation of wildlife. All phases of agricultural and of wildlife conservation and utilization were represented in these conferences.

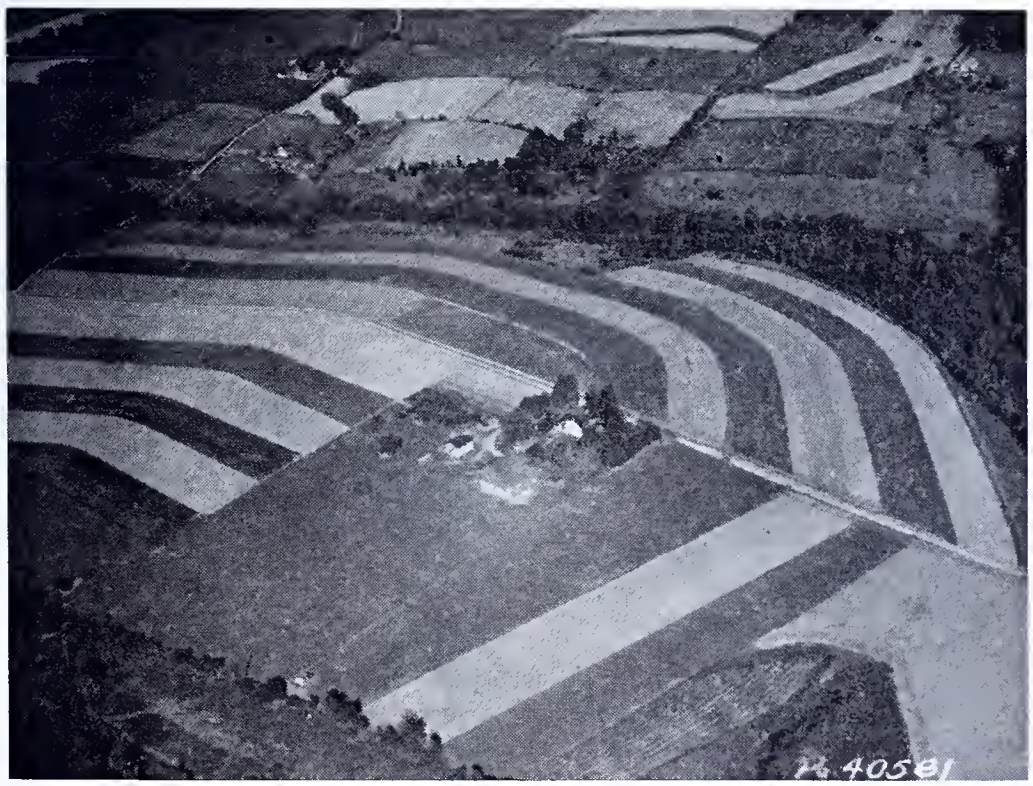
"Studies were made during the next year of areas where attempts had been made, or were being made, to establish farmer-sportsman cooperation in game management on farms. The purpose was to learn some of the causes of success and of failure of game-management projects, the effect game management and controlled hunting have upon the supply of game and hunting opportunities and upon the organization, management, income, and expense of the farms."

### Ecological Changes

"Ecological changes brought about by man have caused an increase in populations of some native forms, both birds and mammals. The bobwhite increased and greatly intensified its range during the pioneer days when clearing and plowing the land and the introduction of new plants provided an abundant supply of food and cover, thus making a more favorable habitat. Probably there are more bobwhites today than before the advent of the white man.

"Deer have greatly increased in parts of their former ranges. After the forests were cut, luxuriant new growth created a habitat of much greater deer-carrying capacity than the virgin woodlands had provided. Even areas near the populous Atlantic coast are believed to have more white-tailed deer today than ever before. Ecological changes brought about by the settlement of the country have resulted in larger wildlife populations in some areas and smaller in others.

"When all the increases and decreases in the number of individuals of various species of wildlife are considered, the aggregate number of game and wild-fur animals in relation to units of land is believed to be smaller than in the past."



These practices demonstrate good land use that assures a stable agriculture. They also provide a maximum of good wildlife habitat consistent with practical farming. On land thus managed wildlife can be made an important byproduct of soil and water conservation.

### In Relation to Human Demands

"The limitation of the supply of game and wild fur in proportion to the increased demand is much more evident than is the decrease in the aggregate number. This demand is determined by the economic and social development of the people and the density of the human population.

"According to sociologists and economists, people exist in a hunting and fishing stage of civilization until the game resources fail to meet their needs. They then usually develop an agricultural society. Records of early explorers indicate that when the Iroquois Indians were discovered by the white men in 1608, there were probably fewer than 20,000 in an area that included the greater part of the present States of New York, Pennsylvania, and Ohio, and parts of Canada bordering Lake Ontario. Even these few people apparently needed more wildlife for sustenance than the supply provided, for they were then in an agricultural stage of civilization. This culture was well advanced among the Iroquois Indians, as pointed out by Yoder.

"It is reasonable to assume that before the white men came the Indians used game and wild fur mainly to provide the necessities of life. Their demand was relatively constant and in direct proportion to the density of population. The white men increased the drain on these resources, for the settlers,

*(Continued on page 26)*

# BLUE TICK

JIM dropped his bags at the door of the apartment, unlocked the door and turned to pick up Mary and carry her across the threshold because they had returned from their wedding trip and this they both agreed was the thing to do.

As Jim stooped Mary put her arms about his neck and playfully bit his ear.

"You great big bruiser," she whispered softly.

"You're no light weight yourself," Jim replied with a laugh as he gathered her up. They were all alone.

As he turned to push open the door with his foot he almost dropped Mary in astonishment.

A cry came faintly through the partly opened door.

Jim looked at Mary in amazement.

"It couldn't be," he said aghast. "It's not possible."

"We've been married two weeks, darling," Mary replied with a skeptical grin.

Jim dropped her to her feet suddenly and Mary swears to this day she was not carried across the threshold and that was the cause of all their trouble—that and Blue Tick.

They walked into the apartment arm in arm and there squatted in the center of their most cherished rug was a tiny ball of dog flesh which cocked its head questioningly to one side and uttered a heart rendering whine.

"Of all the screwy bits of horse-play, this takes the pie," Jim remarked with a frown as he stared at the intruder.

Mary, more practical, looked around with her heart in her throat. Her worst fears were realized.

Those feathers and bits of satin in the corner had once been her choice bedroom slippers. The chintz cover on the easy chair was ripped to shreds about the edges. The oriental rug in the corner bore evidence of recent occupancy. She dropped into a chair with a sigh afraid to venture into the bedroom for fear of more devastating destruction.

"Get him out of here," she cried, her lips set. "I'll get even with the crowd. Just wait until Sue gets married."

"Yes, let's toss him out in the hall," Jim agreed half-heartedly.

But at that moment the pup took matters in hand and waddled over to Mary. He sat down before her and whined at the top of his voice.

"Well throw him out," Jim suggested with a laugh. "He's adopted you, it seems."

"I wonder how long he's been here alone?" Mary asked with a frown.

Jim looked around brightly grinning.

"From the looks of things I should say two weeks, but the size of his stomach indicates about four hours," he replied.

"At any rate he wants food," Mary decided efficiently. "Now you run down to the store and get some milk and biscuits. But don't think for a minute that we're going to keep him because I don't like dogs and anyway you can't tell what breed he is."

Jim went off to the store chuckling to himself.

"Some mongrel Joe picked up," he surmised. "Wait until I see the old so and so. But then Mary will never keep the pup. She doesn't know anything about dogs," and so his mind traveled as he walked briskly along.

Eight months later Mary and Jim were sitting around the den after dinner.

"What's that you're reading, darling," Jim ask curiously?

"Oh some book about dogs," Mary replied buried in the volume up to her ears.

"You know Tick did a peculiar thing today. I meant to tell you about it but thought I'd look it up first," she said, continuing to thumb through the volume. "We went out to see Sue."

"Take the car?"

"No, walked of course silly. It's only a few miles and the country is beautiful. The leaves are turning and the fields smell so nice."

"Well come out with it sweetheart. What did the wonder dog do today?"

"Listen Jim, you don't appreciate it but Tick is going to be a great dog."

"I know, I know, he comes when you whistle and he trots behind you when you tell him to."

"Heel darling. The word is heel."

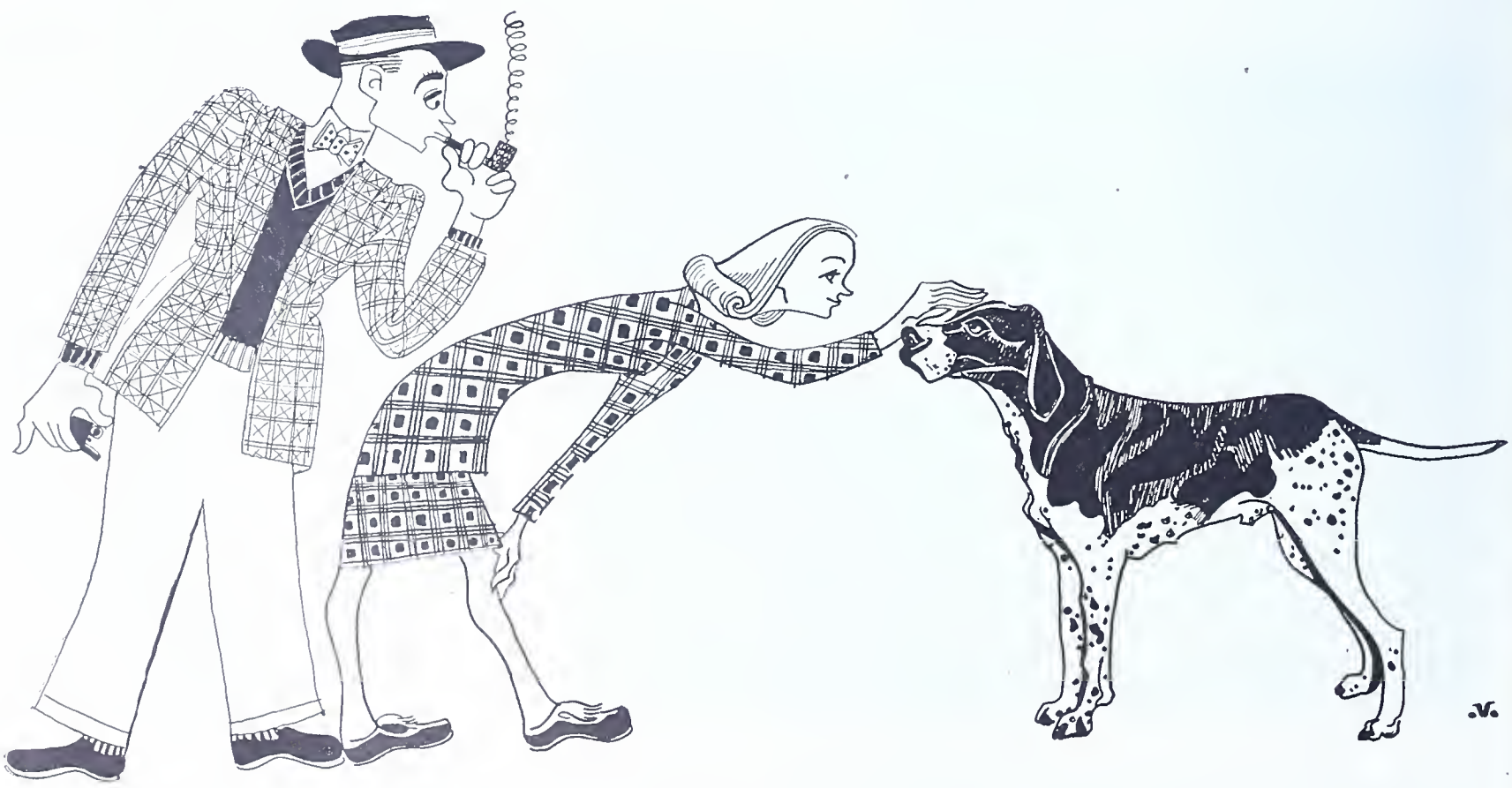
"Are you describing me or educating Tick?"

Mary wrinkled her cute little nose as she grinned.

"Some day you'll be sorry," she said and Tick lying at her feet slowly turned to look at Jim. He was big and bony now and looked like his Dad, for Mary had found out that Joe surprisingly enough had got the pup at Blue Valley Kennels. His head was nicely blacked and his ears well set. Of course his feet were like big cushions but his tail and hind quarters had feathered nicely.

Mary leaned over to pat him on the head and for a minute she thought Tick drooped one eye in an aggravating wink.

"He pointed," she said suddenly looking at Jim for praise.



"He'll probably be the comedian of the meet."

*By Robert Osborne Steele*

"At what?"

"Now what do you think?"

"I can think of lots of things," Jim replied with a grin. "Maybe the moon. He's only a house pet, darling, beyond that he's worth absolutely nothing."

"Anyway, he pointed and when the rabbit jumped up he stayed right on point, the way the book said he should."

Jim rolled over laughing and Tick got up stiff legged and walked arrogantly away his nose high in the air.

"Don't mind him Tick," Mary cried, "someday we'll make him take it all back," she said with a glitter in her eyes.

For weeks on end Mary and Tick walked out in the country and Mary reported progress to Jim. He took it all with a bushel of salt.

"Of course, if you want the exercise," he agreed "but if you think you're training a bird dog your plumb crazy. When men spend their entire lives training dogs. There isn't one good trainer in a thousand and here you are sweetness, about to show the whole world how its done."

"Why don't you come out some evening and watch," Mary invited, "the exercise will do you good and I'm sure Tick will appreciate an audience."

"Can't be bothered," Jim replied, "unless," and he looked over at Mary with a grin, "unless he catches the rabbits he points."

Mary reached down to stroke Tick.

"He hasn't pointed a rabbit since you told him about it," she replied vehemently, "but he does point pheasants and yesterday he pointed the nicest covey of quail."

Jim looked up a little startled.

"And then what?"

Mary grinned.

"Oh I just walk in and flush them and Tick stays right on point while they fly away."

"All according to Hoyle," he asked?

"Yes sir, and not only that but he goes right in and points singles, too."

Tick yawned and nodded his head in silent approval. He had filled out now and was not quite so leggy. His soft coat was covered with blue ticks and his sensitive black nose quivered continuously. Jim had to admit he was a nice looking dog.

* * * * * *

It was on a cold November evening that Jim came home and hung his coat in the hall closet.

"How about a cocktail before dinner, honey, and then a nice bit of steak," he called.

"O. K. on the cocktail," Mary replied from the dining room, "but no go on the steak."

Jim busied himself with an olive and Vermuth, whistling as he worked. As he measured the ingredients he slowly paused and sniffed the air.

"Smells pretty good," he called, "what's on the menu?"

Mary came from the dining room and leaned against the door casing.

"Tick furnished the meal tonight," she announced proudly, "and as a provider he's something."

He almost dropped Mary in astonishment.

Jim stopped in the middle of a shake.

"Are you still trying to train that dog," he asked?

"Not trying any more Jim darling, he's trained," she cried gleefully. "We walked out to Sue's and her father was there with some friends. They were just going shooting and Tick asked whether he could go along."

She paused doubtfully.

"Well, he practically did anyway, because they couldn't get rid of him, and when they came back they said he was wonderful."

Jim looked hard at Mary as he handed her a cocktail.

"Of course they did. I'm sure they did," he went on grimly. "What else could they say? You a friend of Sue's and her father, what else could he do?"

Mary pouted and then grinned.

"Anyway, they got more quail than they ever did before" she declared firmly, "and if he wasn't any good why did they give me a whole bag full for supper?"

Jim grinned.

"After all they are nice people, you know."

But Mary could not be downed.

"And Jake, that's Sues hired man, said he was wonderful too, and I knew Jake couldn't lie. Not to me anyway."

"Well, let's try the birds," Jim suggested setting down his glass and coming into the dining room. "They sure look swell" he conceded, "but I don't know where you'll end with that dog. First thing I know you'll be entering him in the Field Trials."

Mary was strangely silent.

Jim went on serving quail.

Suddenly he stopped.

"You didn't answer me," he asked with a suspicious glance. And after another look he laid down his knife and fork.

"Don't tell me!" he gasped.

Mary flushed to the roots of her hair and Tick stuck his head around the edge of the chair to watch the fire works.

Mary nodded slowly. "He's entered," she replied.

* * * * * *

It was late in November on a Saturday afternoon as Jim and Mary got into the car and Tick hopped in after.

"I've been saving gasoline for weeks," she explained. "The meet is too far out to walk."

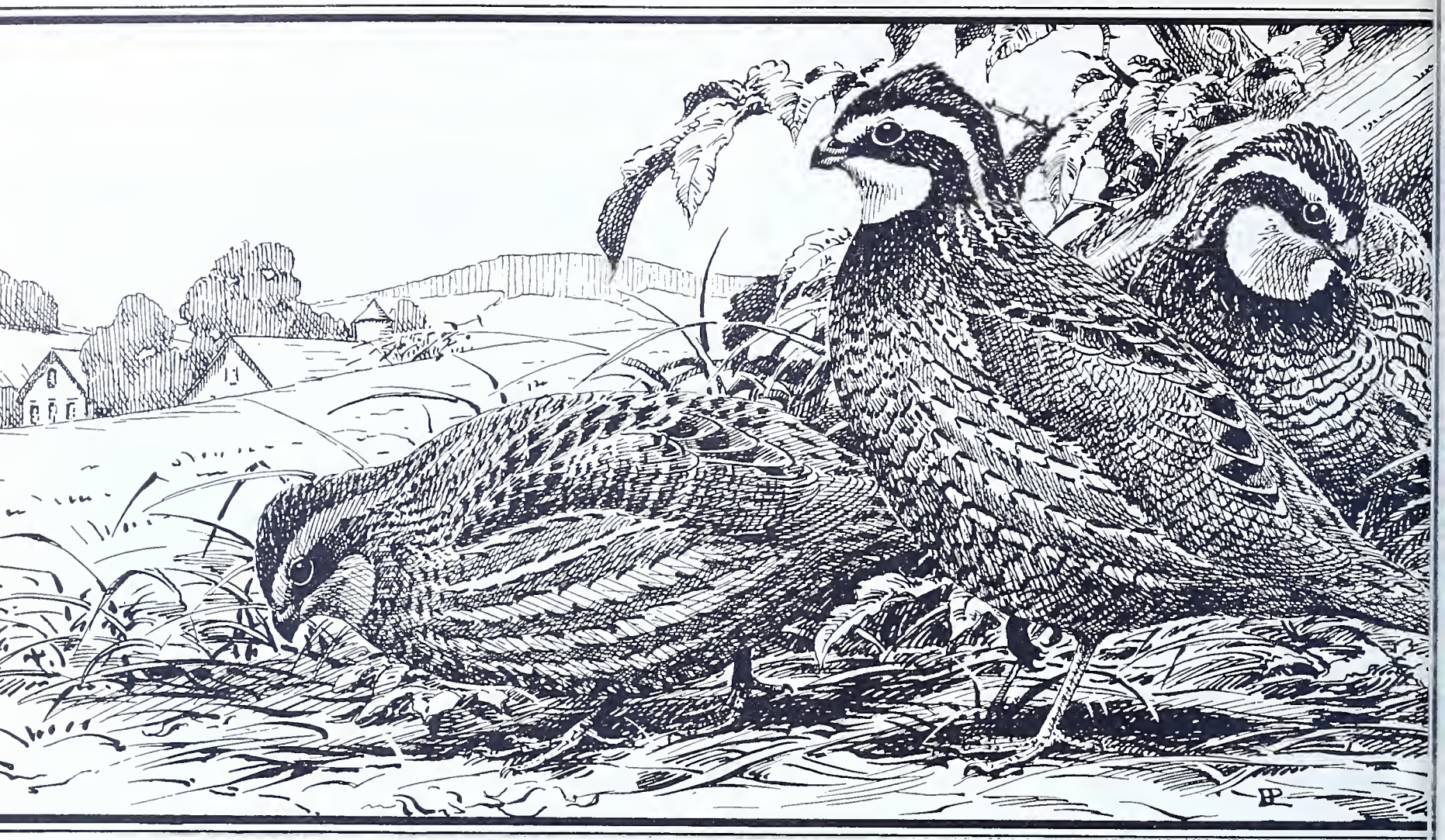
"Just a wasted afternoon," Jim growled as he turned on the motor. "What chance has Tick in a field of professionals? Why he's only a year old."

"He can try, can't he?" Mary asked grimly.

"And that's about all," Jim replied. "He'll probably be the comedian of the meet. Why did I ever marry a girl that overnight becomes a dog trainer? Why didn't your mother warn me?"

Mary took his arm and squeezed it gently.

*(Continued on page 30)*



I HAPPEN to be the owner of eighty-two acres of land in the state of New Jersey. I was able to buy these acres very cheaply, a few months ago, because they had gone broke. I do not refer to the previous owners —the land itself was insolvent. And as you hear the story of this farm in the next few minutes, you will see why I speak of *acres* that have gone broke.

These are old acres that have known the hand of man since Colonial days. Indeed, only the other Sunday morning my kind and friendly neighbor, Abe Schomp, came over to invite us to go with him and his wife to attend an anniversary. There was to be a celebration at the Readington Church of the 215th year since our community's religious center was founded.

For more than two centuries, then, the red soils in this community have been plowed and cultivated, and many generations of men have reaped their harvests.

We have not been able yet to find out exactly when our old home there was built but it could not have been long after the Revolutionary War, when Washington marched his armies up and down the neighboring roads. It is a staunch old house, with wide fireplaces, with sticks and clay within the walls for insulation, with the divided Dutch doors, all set on a sturdy foundation that makes the venerable structure seem veritably a part of the slope in which it sets.

We have learned a little more about the barn. Its oak beams and rafters are just as solid as when they were pinned together by the skilled hands of Mr. Schomp's great granduncle. He did his work in 1834, just one hundred years ago in the time of Andrew Jackson.

This section was originally wooded, but with the possible exception of an elm and an oak I doubt whether a single tree on the place is as old as the barn. In fact our immediate predecessor in ownership of this land felt himself so driven by necessities that he cut down most of the good trees for lumber or fuel. Yet when we decided that the barn needed a new roof, the old shingles that fell to the ground were found to be long, strong and thick—shingles that had been split by hand so long ago that they must have been the original ones nailed up there one hundred years back, and must surely have come either from timber that was then on the farm, or from nearby forests.

The new shingles that replaced this roof came from the forests of the great Northwest, probably from the state of Washington or from British Columbia, nearly three thousand miles distant. A hundred years had seen most of the shingle timber sliced away and used up from the Atlantic Coast almost to the Pacific, so that now the labor of many men in a long freight haul is necessary in order to get a new roof on an Eastern barn. Maybe it's more economical to use the intervening land for other purposes than raising shingles, but still it seemed to me an inconvenient and rather expensive way of keeping the rain off of the contents of the old barn.

I have mentioned that the soil is red. That's true, except that here and there I find a few square feet where the surface soil is blacker and richer. These spots are not in the open fields but in fence corners that have not felt the slash of a plow, or under the few clumps of trees, where grass and vines have continued to grow, and roots have helped the soil to resist the nagging, tearing pull of water after the rains. We have some hillsides that are rather steep and there the rushing waters have done their worst. Gullies have cut down through the red ground in spots until when I stand in the bottoms the sides come up to my waist. We are arranging to stop these gullies, of course, for otherwise they will become wider, longer and deeper and make these once fertile hills forever useless to humankind. These steeper slopes should never have been plowed. Possibly they produced satisfactory crops for a year or so, or ten years, but they cannot do it now. The ground between the gullies has been washed down and away until the top soil such as we find in the fence corners has so nearly disappeared that the present surface is actually what years ago must have been the sub-soil. Indeed, there are places where the underlying rock itself is fully exposed.

It hasn't been easy in the years past to get a good catch of clover in such fields, so apparently they have been farmed year after year, consuming the nitrogen, phosphorus and potash, while few if any of these plant food elements have been replaced. In fact, when I try in imagination to picture the crops of wheat and rye, of timothy and corn, and oats and barley, that have been grown off and on for a century and a half, and possibly more, with so little fertility being restored, I wonder at the magnificent sturdiness of a piece of land that, after such continual drain and so much abuse, can still raise even as good a crop of weeds as sprung up after the rains last summer.

This farm is more or less diamond shaped and there runs through it, for a full half mile, a fast-moving brook that spreads out fifteen or twenty feet wide in places and in other spots can be jumped across. The older neighbors agree in saying that this brook was much more of a stream in their youth, deep enough for swimming in many places, and full of clear, cold water the whole year through.

Once in a while even now it becomes a great stream although its source in the foothills is only four or five miles away. After heavy rains, the water turns brown and red, the colors of the soil in the fields. The little brook becomes a mighty torrent in a tremendous rush to carry its load down to the Raritan River. I say "load" advisedly because at such times it carries a great weight of fine soil particles, of leaves and straws that have been dragged by the rainstorm rills from the slopes of our farm and

# ACRES GONE BROKE

*By Wheeler McMillen**

the other farms upstream. Inconspicuous brook that it is, with every storm it must snatch literally tons of plant food and soil away from the farms of its narrow watershed and thus, with each recurrent flood, leaves the land it drains poorer and less fertile. To whatever extent it does that, it carries away potential earning power of those fields, potential dollars from the pockets of farm owners, potential shoes or ice cream for children, potential gasoline for automobiles, potential new dresses for wives. I am carrying the illustration out to this extreme because it does give a glimpse of the truly terrific toll the persistent forces of erosion are stealing by wasted waters from farms all over the United States.

When the torrents have gone and spring weather opens up, farmers in our eroded watersheds go out to plow fields that are less fertile each spring than the year before; they put in the same amount of seed and the same amount of work and harvest a lesser yield, and in consequence have fewer dollars. Nor is the loss of actual soil and plant food the only misfortune that falls when the waters rush away after the rains. Those waters themselves should not be permitted to hurry away so fast. If we were to learn how to plan the use of our watersheds so that grass or trees or terraces would restrain the run-off, more of the rainfall would remain to promote the growth of crops. Plenty of water rains down on most of the fields of the United States to make better crops than we have if only we were advanced enough to know how to prevent the blessed moisture from dashing off into the rivers without lingering to refresh the roots of our growing crops.

We enjoy the presence of this little brook on our old farm, destructive as we know it to be at times. It is pleasant to look out from the house and see it shimmering in the summer sun, or glimmering in the light of the moon, and it is delightful to hear the murmuring of its waters when one lies down to sleep at night after a hard day's work. One day we thought we would find out how the fishing was. The result was the capture of a few chub minnows that we hastily restored to their element, and one or two quarter sized sunfish. We could see in the deep spots an occasional moderate-sized sucker. That's about the list of the fish inhabitants of this brook, which is cold enough to support the gamey trout, full enough of food to make a good home for the comfortable old catfish, and possibly even the fiery black bass. But apparently all the ancestors of such species have been fished out in other years, or else the stream has shrunk until the hiding places are no longer attractive. So we shan't have much fishing in our brook until we make it a pleasanter place for the fish, and arrange with the state to have it restocked.

I fear that I haven't given you a very good impression of our old New Jersey farm. On the basis of what I have been saying, I don't suppose any of you are very anxious to buy it. Well, if you wanted to make a living from it, I would be a little ashamed to sell it to you. Being forced by the nature of my job to spend too many days surrounded by brick, stone, steel and concrete, this old farm has its principal value now as a place to put my feet next to the natural earth, where I can regain contact with the realities of the soil.

On a better farm in another state farther west, I am interested in preserving the soil elements and plant food that nature put there. We are going to be careful not to repeat on that farm the mistakes that have led these old New Jersey acres into insolvency. When a man's capital is depleted or exhausted so that he no longer receives anything from it, and he has no longer any earnings, we say that he is broke. That is exactly the case with this old piece of land. Its acres are broke, because their original capital is gone. The top soil is washed away. Their capital of plant food and fertility is spent. Their capital of well-grown trees has been removed from the steep slopes. Their capital of fish in the brook, which might furnish man an occasional meal and a half day of pleasant sport, has disappeared. The exhaustion is so complete that after the last owner died, no one could be found who thought these old fields would repay the toil and expense of cultivation. The capital left would no longer yield enough income for the support of man. The fields lay idle and abandoned. There was the final evidence that these acres are broke.

An interesting challenge, this old New Jersey farm presents. It raises the question as to whether man can replace the resources of natural wealth that have been used up in two centuries of farming. We are going to dam up those gullies; we are going to plant trees and shrubs on the hillsides that should never have been plowed, and eventually we

Food plots. If landowners would plant food plots along fields adjacent to woodland areas they would provide much food and shelter for wild creatures.

may attempt with lime and legumes and fertilizer in sacks to replace some of the nitrogen, phosphorus and potash that have been consumed. All these processes will cost money, and it may be years before these weary and worn out acres can regain their vitality and once more hold up their heads in solvent self-respect. I have a great deal of admiration for these fields, because after all they did maintain for several generations the families that lived on them. I do not criticize those who held title to this land before me because they did what other men were doing all over America and what too many of us are still doing.

We mine out the soil in order to pay taxes and living expenses, without realizing that if this process continues indefinitely the time must come when the mine will be empty of its resources. Nor do I intend to say that this pace is even now a total loss as a productive unit. After all there are still rabbits in the hedgerows; I hear the pheasants clacking in the fields, and fifty or more kinds of birds make their home around the place. If necessary, we might rent out to hunters the right to shoot our pheasants and rabbits and

*(Continued on page 30)*

The ugly tooth marks of erosion are already manifesting themselves on this farm, which is all too barren of the excellent woodlands, streams and fence growth necessary to make it a productive and beautiful property.

** By Wheeler McMillen, Editor of The Country Home, in the Conservation Series of the National Farm and Home Hour Program, November 16, 1934, over NBC-WJZ network.*

Photo by Marty Myers
Our alarm clock—the crows.

# Log of Rattlesnake Shack

*By A. B. Champlain*

EDITOR'S NOTE: This is the 4th of a series of Nature Stories by Dr. A. B. Champlain, State Entomologist.

This little weather beaten shack in the mountain clearing maintains a unique place among hunting camps. It has a dignity lent to it by the guests who have honored it with their presence.

We can boast that many well known scientists have enjoyed its shelter. Artists, writers, and naturalists have stopped to investigate. Hunters have claimed it as their own, and friends from all walks of life have visited here.

Charming ladies have burned their fingers over the outdoor fire-place. Gentlemen have cooked meals and washed dishes, and children have romped in the clearing. Each has enjoyed the season best suited to his or her entertainment, and all have contributed to the various activities and events noted in the log book. Our camp ground and the general locality are part of the well known Bayard Estate, and we wish to acknowledge kind cooperation from past and present members of this family, who have made it possible for our continued observations on the local flora and fauna.

**October**

Deer eyes flash and disappear, a pair of foxes melt into the shadows along side the road; we are on our way again, at night. We also meet skunks and rabbits and we are careful—for skunks stubbornly dispute the right-of-way, or unhurriedly waddle across in front of us with little concern for their own safety. In the same category come the "dumb Bunnies" who flirt with danger by feeding along the roadside and then erratically dash onto the highway every time a car "light" approaches. Sportsmen and careful drivers can save the lives of many such light-blinded creatures by using their hunter's instinct for quick judgment in operating their cars.

All of our animal neighbors around the shack are now more adjusted to our presence in the woods. They accept the noises of camp life as part of the general scheme. Our tamest skunk came up to investigate a radio broadcast and to check on the food situation one evening, soon after our arrival. Later, a visiting "coon", startled by a light flashed upon him, hurried up the birch tree over the scrap pail. We kept him perched there like a "tree sitter" for an hour or more to the delight and for the edification of guests who were with us.

Raccoons frequently scramble across the porch at night, sniffing at the bag of fruit, hanging too high for their reach. Again we catch them with our flashlights, robbing the squirrel feeders.

Gray squirrels are active all through October, cutting acorns, butternuts, chestnuts, the seeds of tulip poplar and dogwood. In addition to this, our local grays love to visit the feeder and get the left-over butter toast, placed there for their pleasure.

We would like very much to tell about the black bears that have been seen in our valley, but so far they have not given us the opportunity to make their acquaintance. Many persons, however, over a period of years, have reported seeing one black bear or several, especially during October.

Perhaps we may mention here that a feeble minded woodchuck was observed in the bot-

Log house, wood pile—and Marty.

Sawing wood.

Witch Hazel blossoms look something like this.

tom land, sitting under the old apple tree—October 31, 1937—this is our latest record. Most of his relatives or friends were by this time in their underground bedrooms, beginning their winter siesta.

Now fall time is with us and changing leaf colors lend an additional enchantment to our enjoyment of the out of doors. We see a dashing buck, well antlered, along with several soft-stepping croquettish does, framed for a moment in golden autumn tints, with a background of reds, yellows, and fading greens—all of which make a pretty picture for our memory book.

Dabbling in everything we get out our paints and brushes, for we have the inclination to depict the brilliant colors of fall time. Our canvasses fall far short of reaching the perfection we would like to reproduce, but we have some fun and a record for future remembrances.

The gum tree, brilliant red when October starts, is bare before the middle of the month. However, the middle of October is our most entrancing color time in the woods. Toward the latter part of the month we will have had heavy frosts after which the leaves fall fast.

Our coon hunting friends drop in as usual on favorite nights. Upon several occasions they have brought to bay, with their dogs, a house cat gone wild in the woods. This menance to wildlife, is often met in our mountain region and we destroy all that we find.

October is full of last records for the season and here we bring the "rattler" in again. The last rattlesnake seen around camp was on October 9, it was rather sluggish—however do not fool with a rattler even this late in the year—he may not feel like fooling. The last blacksnake was observed on the south side of Peters Mountain across from Camp on October 12. This snake was not very active, but was out in the open. Last blue tail lizard was recorded October 12 on the sunny side of the shack about midday.

One October evening, from the dusky depths of the heavens, came voices—as they drew nearer and grew louder we recognized the confused musical calls of the wild geese. Sometimes we could see them, strung out in their wavering victory emblem against the sky. Each year we hear the notes of the migratory hordes as they pass high over our hills on their way to the Southland. These migrations may occur from the middle to the last of the month.

White-footed mice.

Many other migrating birds come through during this month, still others that have been to the northward all summer, now return to abide with us until the next spring. Flocks of blue jays, flickers, doves and robins are moving about; hawks in the air; some fox sparrows, wood thrushes, blue birds, phoebes, cedar waxwings, and kinglets in the tree tops. Arriving or continuously with us we note the juncoes, titmice, gold finches, chicadees, purple finches, brown creepers, and winter wrens.

In the morning the cawing crows act as our alarm clock, while the woodpeckers follow up with a tattoo on a dead tree limb to remind us of their presence.

Ofttimes a little screech owl takes possession of the box type squirrel feeder at night. She sits in this shelter for hours, no doubt watching for prey. Perhaps the answer is beneath, where tiny white-footed mice with big ears play about, accepting the crumbs dropped earlier from the feeder by careless "grays."

During our rambles now, grouse are more often flushed. We go farther afield to investigate—but I guess there is no need to remind you that the small game season is close at hand.

By this time the hum of insects is stilled and the trees and bushes are getting bare. The heavy frosts have taken the feeble remnants of the grasshopper clans, a very few of whom last through October. Possibly an ancient katy-did limps about for a few days, while those funny insects known as walking-sticks, now fully matured are roaming aimlessly about, waiting for the end. A few *Vespa crabro* and other hornets and wasps continue to hang around, but seldom after the middle of the month.

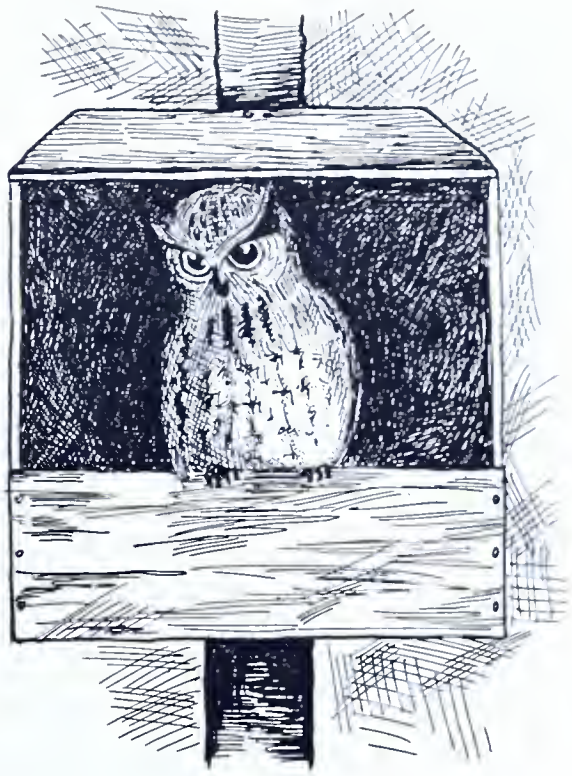
Along the stream, however, adult caddice flies are emerging. They congregate upon our lighted window at night, indicating that a new supply of trout food is on the way in our stream.

During October we may have rain and sleet and possibly some snow. Along with these gentle reminders that winter is creeping up on us, there is still a promise of spring in the bush. Our witch-hazel shrubs decide to bloom at this time, and they carry their cheerful tiny yellow streamers into the winter months. Witch-hazel flowers are noted upon our records, beginning October 1, continuing throughout the month.

The strawberry bushes are now beautiful and give the swamp land a cheerful tone with the brilliant orange and scarlet fruit. While the red spicewood berries add their touch of color to the general scheme.

There are some prosaic duties that seem trivial to mention, but which are most essential to camp life. Gathering wood during cooler weather and then cutting it into stove lengths for the coming hunting season and for other winter uses are important. The old buck saw was the first method during earlier operation—later we added the cross cut and now we can generally depend upon the boys to rig up a sawmill. With Roger Baker and Marty Myers to act as masters of ceremony, the saw and mandril are rigged up to the hind car axle with pulley and belt. The log pile soon develops into a wood pile and all we have to do is split it to suit. Perhaps we will be back to the buck saw again while rubber and gas are at a premium.

Toward the last of October (instead of spring) we have our house cleaning time. We must get our guest house ready for the hunting season. The log house annex built of seasoned locust poles and chinked with cement, as engineered by Marty Myers, is usually occupied by hunting friends during most of November and part of December.



Owl in squirrel feeder.

Why do we have the urge to get out our guns and ammunition to pack up our blankets and hunting traps, to lay in a grub supply along with simple remedies like baking soda and a fifth of "snake bite" cure?

Why de we go back generations in a few hours, in our desire to match our wits and skill against that of wildlife, in order to make a kill? We might just as well ask why strawberries grow whiskers!

At any rate on October 30, or the day before the season starts, we open up hunting camp with enthusiastic expectation for the morrow. We hope we will be safe hunters, good observers, and we will be sure we are right, then look again!

Sometimes we could see them strung out in their wavering victory emblem against the sky.

# American Woodcocks

MANY stories have been told about the woodcocks; some of them were based on facts while others were purely tales. Although the bird is not large in size, the mysteries surrounding the life of woodcocks are many. Due to the fact that they are crepuscular in habit they are not often seen by most people except during the shooting season. This lack of observation undoubtedly accounts for many of the "fairy tales" concerning them. Many of the mysteries of this remarkable and unorthodox game bird are not yet solved. They are migratory shore-birds but the route used during migrations, the numbers traveling together, and the elevations at which they fly are not definitely established. Many other things about the birds' life history and ecology are cloaked in mystery; however, during the last few years certain of these unknowns have been solved, and within the near future many more facts about them will probably be known since more attention is being given to the birds by scientists.

Woodcocks are not the most important game bird in Pennsylvania but they furnish many enjoyable hours of sport to both naturalists and hunters. Kill records show that an average of 40,000 is taken by sportsmen each year. The birds are also important to the Pennsylvania hunter because the shooting season opens during October and this affords them an opportunity to practice up on their wing shooting and condition themselves for the coming grouse season. Woodcock hunters, although few in numbers, are one of the most ardent groups of sportsmen in the state. They will tell you that a good woodcock dog is one of the most important things a man may own. All you have to do is mention woodcocks and many hot discussions will begin.

Before getting too involved in the merits and tales of the timberdoodles, let us look at some of the facts that are known about them. Most of the woodcocks breed in the northern states with the heaviest concentrations occurring in the Maritime Provinces of Canada and Maine. However, they are known to nest over eastern North America, from Newfoundland west to Colorado and south to southern Louisiana and central Florida. During the winter most of the birds are found in the Gulf States, South Carolina, Georgia, and southern Arkansas. A few persistant individuals have been observed enduring the northern winters along spring runs where the ground is not frozen.

Woodcocks start their northward journey early in the spring, arriving in Pennsylvania during the latter part of February or early in March, and by the latter part of March many have begun their breeding activities. Like most shorebirds, woodcocks have an interesting courtship. Immediately after arriving on the breeding grounds each male selects an open grassy area in the woods which is used as a singing ground or courting area. Each evening at dusk and again in the morning at daybreak he appears there to begin his spectacular courtship. On moonlight nights the male may be seen on his singing ground at varying intervals; apparently he sings for a period, then feeds and rests a while before returning to his courtship activities again. He may do this throughout the night but shortly before sunrise he returns to the nearby forest or shrub cover to spend the day in seclusion. The female woodcock also inhabits the nearby thickets during the daylight hours.

A typical woodcock courtship display may be described as follows: About dusk, when the light conditions are just right, the male leaves a thicket closeby and silently flies to his singing ground alighting with a flutter of wings. Almost immediately he begins to call, uttering a harsh, nasal sound similar to that of a nighthawk. This sound, phonetically expressed as "peent" or "zeep," is given at about one second intervals. If close enough to the bird, a low cooing sound, expressed as "took-oo" may be heard immediately before each "peent." While making these sounds, he may turn slowly around but he does not move far. After a series of these calls, he springs into the air ascending at first like an airplane, but soon he climbs skyward in a steep spiral flight over the singing ground. A twittering sound, increasing in pitch as the bird reaches the apex of the flight, 200 to 300 feet up, is clearly audible. Then suddenly he drops from the air in a zig zag course uttering a mixed warbling and twittering sound during the descending flight. When a few feet above the opening, the song stops and the bird breaks his rapid descent by fluttering to the ground within a few feet of the spot where he started the flight. After alighting, he starts all over again. This procedure continues until about 12 such flights are made and by then it is nearly dark. After peenting and cooing for a few more minutes, the male silently flies back to the thicket to feed and rest, or he may choose to remain on the singing ground to take his evening meal.

The woodcock's food is mainly animal matter, the bulk of which is earthworms. According to a study of the birds in Maine (Aldous, 1939), their diet is 96 percent animal matter, of which 86 percent is earthworms, and the other 10 percent insects. Seeds and other vegetative matter are found in woodcock stomachs but they are probably taken accidentally or may have been injected in the earthworm's stomach when eaten by the bird. Since a study of the diet of these birds shows that earthworms constitute the balance of their foods, it is logical to conclude that the distribution of woodcocks depends a great deal upon the occurrence of this food.

The woodcock's long, slender bill is especially adapted to extract worms from the moist soils of the bird's feeding areas. The bill is so constructed that the tip may be opened and closed to grasp worms while the remainder of the bill is closed. The bird's eyes are set well back and near the top of the head. This also helps the bird while feeding; he can probe deep into the soil to reach worms without obstructing his vision.

[1] Written while a student at Pennsylvania Game Commission Training School.

*By Allan T. Studholme*

It is not possible to tell the sex of woodcocks by coloration since the males and females are marked alike. However, it is possible to tell the sexes of most of the birds from outward appearances. The females are usually larger and their bills are longer than those of the male. Studies carried out in Maine (Aldous, 1938) showed that 95 percent of the birds having bills 70 or more millimeters long were females and 95 percent of the birds whose bills measured 66 millimeters or less were males.

The display by the male woodcock on his singing ground is apparently given to attract a female, since females have been observed near the singing grounds after the energetic and vociferous exhibitions.

This peculiar habit of woodcocks has made it possible to trap and band adult males. A stuffed woodcock was placed on a singing ground one evening in central Pennsylvania, to see what would happen (Studholme, 1940). When Mr. Woodcock came to his singing ground that evening he ran over to the mounted bird and attempted to copulate with it. Since a bait had thus been found, it was an easy matter to build a trap. Two number 9 wire jaws were welded onto the jaws of a large fox trap. Light, but strong, netting was used to cover the wire jaws and a rubber band stretched from the pan to the base of the trap set if off when the observer pulled a string attached to a wooden peg under the pan.

Only 21 birds were caught using this method, but as more are trapped and banded it is hoped that some of the migration secrets and other life history mysteries may be solved. Already two returns have been obtained from these birds. One of them, banded in the spring of 1939 in Centre County, Pennsylvania, was killed in Clarion County during the 1940 shooting season; the other, banded during the spring of 1940 in Centre County, was shot that same fall in Connecticut. No conclusions can be drawn from these two records; however, it makes one wonder just why these birds flew north after having been caught on their singing grounds in the spring.

During the same study it was possible to obtain definite data on the populations of woodcocks and the fluctuations of these populations. In the spring of 1939, 45 singing males occupied the 950-acre scrub oak-pitch pine area; whereas in 1940, 27 males were counted. This 40 percent decrease compared favorably with census figures taken in Maine during the same periods. The data obtained in the spring of 1941 revealed that the population of singing males had decreased about 16 percent from the 1940 census figures. The reasons for this decline are not known; however, during the winter of 1939-40 many reports were given on the effects of the extremely cold weather in the South. Many persons in Louisiana stated that woodcocks were killed by the severe cold and that a great many more were found in a weakened condition. During February 1899, thousands of woodcocks perished in South Carolina during severe winter weather (Pettingill, 1936). Sometimes the birds are also subjected to adverse weather conditions on their breeding grounds. Undoubtedly, such severe weather conditions are an important factor influencing the populations of woodcocks.

Recently adult woodcocks have been banded on their wintering grounds in Louisiana (Norris, 1941). These birds were caught at night while on their pasture-land feeding grounds. After they had been "shined" with a head light they were caught in a shallow net attached to a pole 12 to 14 feet long. In Maine, several hundred juvenile woodcocks have been banded by Aldous and Mendall. They caught the young birds by using a leashed bird dog to locate the family shortly after they had left their nests. At this time the young were easily caught since they could not yet fly.

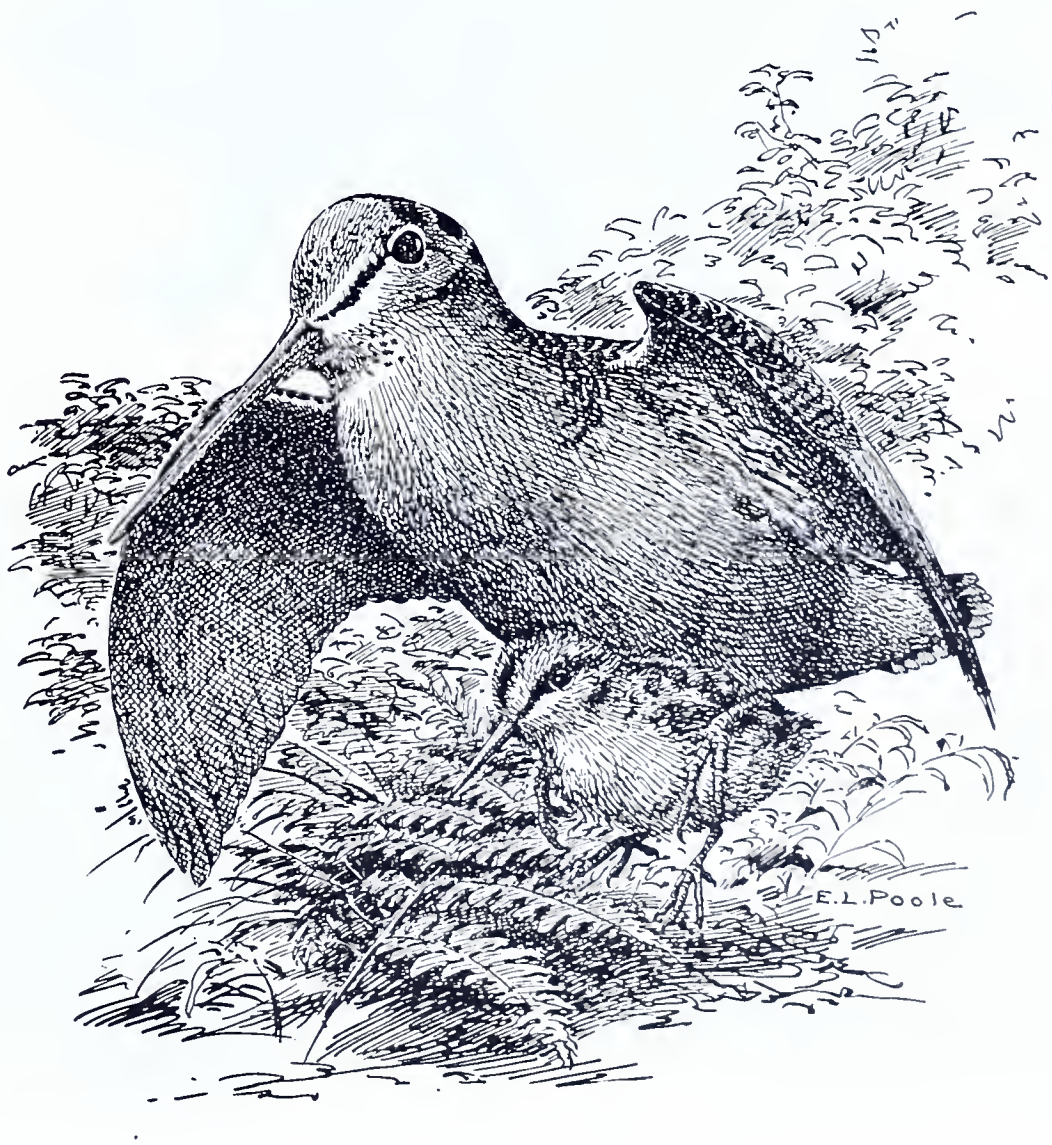
Mrs. Woodcock is not too particular about the construction of her nest. It is nearly always a shallow depression in the ground sparcely lined with leaves or other vegetative matter found nearby. Usually she builds the nest in wooded areas where it is fairly dry, but sometimes she picks open grassy fields and damp areas as a nesting site. Generally the nest is located within 200 yards of Mr. Woodcock's singing ground. Perhaps she listens to his songs while she is incubating the buff-mottled eggs. The eggs, three to five, but usually four, are laid in April and are hatched after about 21 days of incubation.

The big footed, long billed young are able to leave the nest a few hours after hatching. The female woodcock takes good care of her fast growing young. She teaches them how to find food, how to hide when danger is near, and broods them when it is cold or wet. Many persons have reported seeing the female fly away at the approach of danger and carry one or two small young between her thighs. The birds grow rapidly and after about two weeks can make short flights of their own. Apparently the males do not know where the nests are located and do not assist with the raising of the young.

Like many other wild birds, woodcocks must struggle for existence. Their coloration matches that of the forest floor and when danger approaches they have the ability to crouch, remaining motionless for long periods. When necessary the bird flushes, requiring little time to fly out of sight. In spite of these natural protective measures, predators may take their toll. Mammalian, avian, and reptilian predators have been recorded as having killed woodcocks or destroying their nests. The homeless domestic cat appears to have caused the most destruction. But severe weather on the nesting or the wintering grounds undoubtedly is an important limiting factor of woodcock populations. Hunting is also an important factor; but perhaps the most important and most difficult to evaluate is the constant change taking place in the habitat.

Due to the specialized feeding and breeding habits of woodcocks a suitable habitat must satisfy a diversity of requirements. The soil must be sufficiently damp and friable to allow the birds to probe; it must also support a good supply of earthworms as food. The proper kinds and amounts of covers for nesting, feeding, and resting must be present. It is important that small openings, used as

*(Continued on page 31)*



# Mighty Oaks From Little Acorns

*By The Editor*

Despised for his scent but prized for his hide.

In these hectic, bustling days of all-out war, with our thoughts concentrated on the mass production of the materials of war, we are prone to overlook, or sidetrack, some of the smaller items that will, with a little interest and enthusiasm, create additional sources of raw material.

Because the American standard of living has been so high we have ignored our many wasteful habits. We have discarded, without much thought, such things as old aluminum pots and pans, pieces of copper, old iron, paper; and many an old tire has found a final resting place on some creek bed.

Many of these things which we considered unimportant are now assuming tremendous importance, and their wholesale collection and conversion into materials of war are vitally essential if we are to emerge the victors in this mad, world maelstrom.

Recently I heard someone remark that the amount of scrap rubber collected was but a drop in the bucket compared to the shortage. I will admit that due to the former abundance of raw materials, many articles were discarded by the people of this country before they were completely worn out. And the materials contained in the articles were not salvaged. Hence no proper system of salvage was available when shortages came. This apparent lack has caused some confusion and duplication of effort that has increased the cost of scrap materials, but these faults are rapidly being ironed out and this stumbling block will soon be removed. When it is, old rubber, as well as many other vital scrap materials, will flow with increasing volume towards relieving the shortage.

Let us think for a moment in terms of other wastes—the wastes of wildlife. Little insignificent things add up among this great natural resource, too. As an example, let me cite an article entitled "The Skunk's Been Drafted" by Lewis S. Winner, President of the Clinton County Fish and Game Association, which appeared in the May 1942 issue of this magazine, wherein he pointed out the potentialities of the skunk as a source of fat and glycerine. Those of you who read that article probably never realized that a creature heretofore despised for his scent, and prized for his hide, would serve any other useful purpose. The average farm boy doesn't realize when he catches a skunk, skins it, keeps the fur and throws the carcass into the woods, that he is wasting enough grease to produce soap for his family for a week or two. Yet that is just what he's doing.

It is said that the average sized skunk will produce approximately *three* pounds of fat. Larger ones weighing around ten or twelve pounds would undoubtedly produce more, say about *six* pounds. Others may not produce over a pound or a pound and a half. But three pounds is a fairly good average, and figuring four millon skunks, the approximate annual take in the United States, at three pounds each, would mean twelve millions pounds or the equivalent of 200 tank car loads of 60,000 pounds each. At a value of roughly 9-¾c a pound it would be worth $1,170,000; something to think about!

But would the mechanics of transmitting skunk carcasses from trappers to fur buyers for rendering be economically practical? I do not know. Pennsylvania trappers and fur buyers should get together before the season rolls around and determine whether it can

*(Continued on page 25)*

**Rubber as well as many other vital scrap materials will flow with increasing volume towards relieving the shortage.**

# The Farm-Game Program

## *By W. Gard. Conklin*

Photo D. L. Batcheler

**Farmers approve the program because it helps to protect their property and livestock. Already the plan has survived the test of six small game seasons.**

THE Cooperative Farm-Game Program was adopted in 1936 to improve small game hunting conditions in the more intensively cultivated sections of the State where the hunting pressure is greatest. Its application is therefore limited to the counties of Adams, Berks, Bucks, Chester, Cumberland, Dauphin, Delaware, Lancaster, Lebanon, Lehigh, Montgomery, Northampton, Philadelphia, and York in the southeastern section of the State, and Allegheny, Armstrong, Beaver, Butler, Crawford, Erie, Fayette, Greene, Indiana, Lawrence, Mercer, Washington and Westmoreland in the western section.

The plan has survived the test of six small game hunting seasons, the first having been during the fall of 1936 at which time, however, only one project area had been set up. The consensus of opinion of sportsmen, farmers and the Commission is that it has been quite successful in most respects and should be continued. The fundamental provisions of the plan remain unchanged. Few practical suggestions for improvement of the plan have been made, and those of a pertinent nature have been adopted.

A new illustrated pamphlet describing Pennsylvania's Cooperative Farm-Game Program was recently received from the printer and copies distributed to sportsmen's organizations and others. Provisions of the plan on which the program is based are cited and benefits to be derived by both cooperating farmers and sportsmen explained. Copies may be secured either from the Commission's officers in the field, or by writing to the Harrisburg Office.

A systematic investigation of established project areas was conducted during the past six months to determine whether certain areas should be eliminated, whether others should be extended, and to correct discrepancies in property owners, acreages, etc. As a result eight projects have been dropped because of their small size and poor showing, and one was eliminated when the tract of land was purchased and became State Game Lands. Concerted efforts have been and are being made to enlarge most of the other project areas. Numerous properties have changed ownership. Certain refuges had been eliminated or their boundaries changed, and other more desirable new refuges set up. A large number of new properties have been added to certain project areas. These innumerable changes have been indicated in records of the Harrisburg Office, and on the respective work maps. When the small game hunting season opens this fall, sportsmen will find more good farms open to them.

On May 31, 1942, there were 76 project areas functioning in 26 of the 27 counties involved in the program. No project has been established in Philadelphia County and due to its location there is little likelihood of securing one. The 76 project areas comprise 1,776 farms, totaling, 146,169 acres. Indications are that the total acreage will be considerably increased by the time the small game hunting season opens.

This program has proven of great value to sportsmen and farmers alike. More than

*(Continued on page 29)*

Photo by Henry Schell

**Good sportsmanship prevails on Farm-Game projects. The hunter on the right respects his companion's shot.**

# « « EARLY FIELD CONFERENCE

## THIRD ANNUAL CONFERENC

Members of Commission, center, front row sitting, left to right: Franklin G. McIntosh; Jared M. B. Reis, Dr. H. J. Donaldson, President; Francis H. Coffin; Seth Gordon, Executive Secretary.

First row sitting left to right: C. E. Logue, Warren Fretz, J. S. Reinert; Jarvis E. McCannon, Samuel A. Keene, Charles F. Fenstermaker, James D. Geary, Edward Jones, Wm. Merring, John Lohmann, Thos. Murray, Geo. H. Watrous, Leon Hogarth, M. E. Sherman, A. L. Budd, Frank A. Myers, Charles B. Baum, John B. Ross, Wm. C. Kelly, Herbert L. Beatty, Henry S. Sines, W. C. Stevens, J. B. Lightner, Bruch Yeager, Harry Miller, A. Lincoln Cox, George McCabe, George Champaign, Charles Snyder, Miles Reeder.

First row, standing left to right: Harry Van Cleve, Hugh H. Groninger, Maurice Shuler, Harry H. Gibb, Leo Bushman, Ray O. Dunkle, Fred Fisher, B. A. Benson, Ralph E. McCoy, Thos. A. Mosier, H. A. Meiss, John Berrier, Arthur W. Shaw, Wm. Anneman, Linwood E. Brown, B. A. Wright, Howard Mussleman, Wilbur M. Cramer, Chas. Stambaugh, Norman Wood, T. I. Shaffer, Dr. Geo. M. Sutton, Howard Steiner, J. B. Truman, John J. Slautterback, Wm. C. Achey, Archie Smith, Wm. L. Ibach, A. G. Logue, W. J. Davis, C. C. Brennecke, Harry Bittner, Elmer Thompson, Lewis Litzinger, David A. Zufall, E. W. Turley, C. B. Benson.

Second row, standing left to right: Elmer Nelson, Hamlin F. Wilson, Wm. G. Love, A. N. Srader, W. L. Wright, Wm. J. Brion, H. D. Carrol, Jos. P. Kennedy, Ralph A. Liphart, R. L. Seager, Jos. M. Curts, W. B. McClarin, Samuel Price, Wm. F. Hamilton, W. J. Delansky, W. J. Bailer, R. L. Hicks, Jesse Hassinger, Ed. N. Eakin, Frank Fair, Wm. D. Clark, Geo. M. Langdon, Walter S. Cross, Rollin Heffelfinger, W. F. Simrell, Carl O. Meiss, Robert Latimer.

Standing on steps, left to right, rows in order: Wm. F. Mason, L. D. Rearick, David Franklin, John Fenton, Harry Wingard, Edgar Bergstrom, J. C. Gilford, G. W. Cederborg, E. W. Carpenter, Geo. Ryder, Howard Shoaff, Hayes Englert, Wm. E. Guinter, Cecil Marsh, George Hunt, Ernest Hunsinger, Paul F. Cederborg, J. Clyde Smith, Hugh Baker, J. Russell Spahr, John A. Seifert, Edward Shaw, John W. Baumgardner, Ray Kauffman, Samuel Osenbaugh, LeRoy Jefferson, John A. Hopkins, Elmer Pilling, C. A. Lightner, J. C. Rearick, Miles Ovaitt and J. Frank Cavender.

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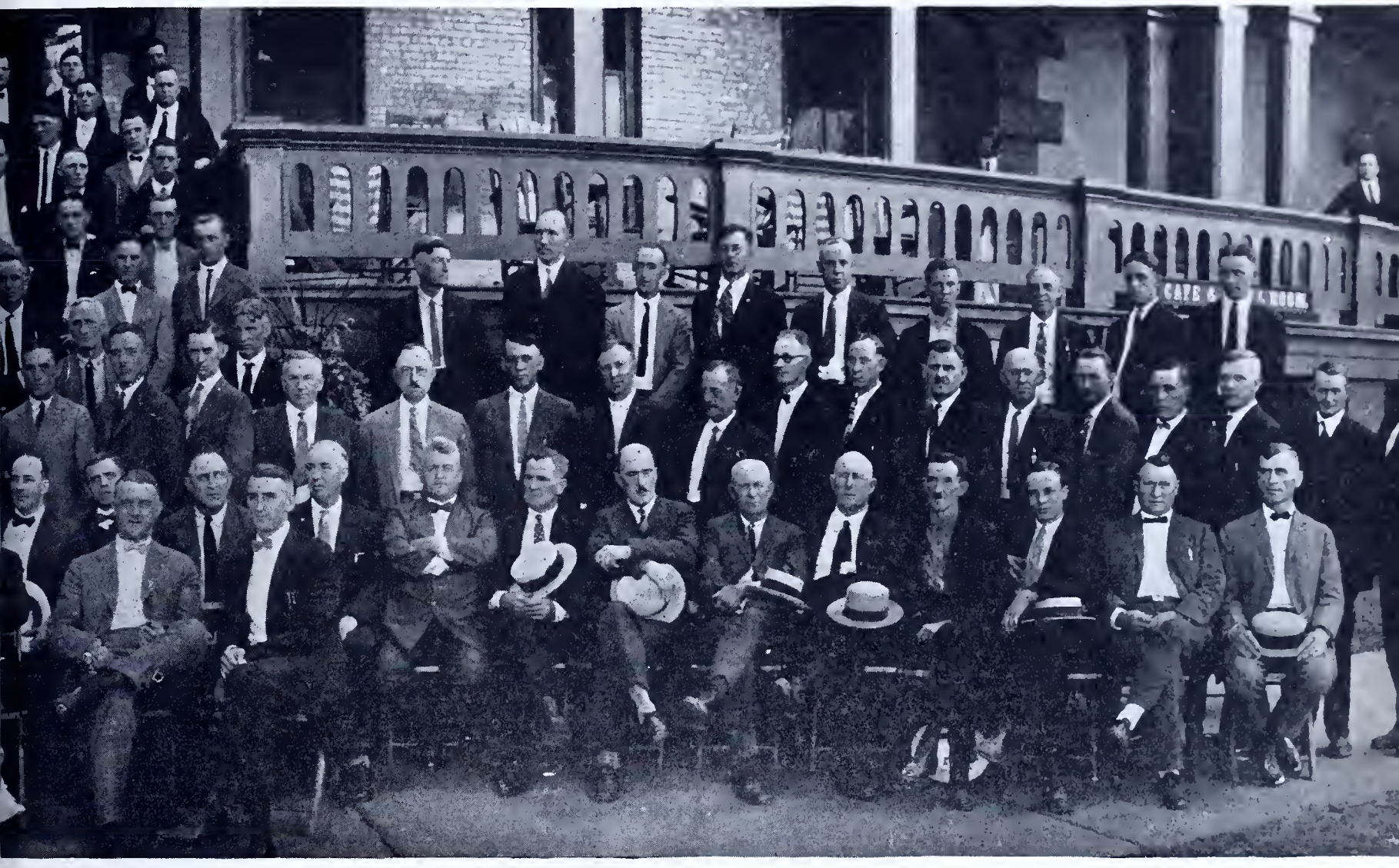
# F THE GAME COMMISSION » »

ARK HOTEL, WILLIAMSPORT



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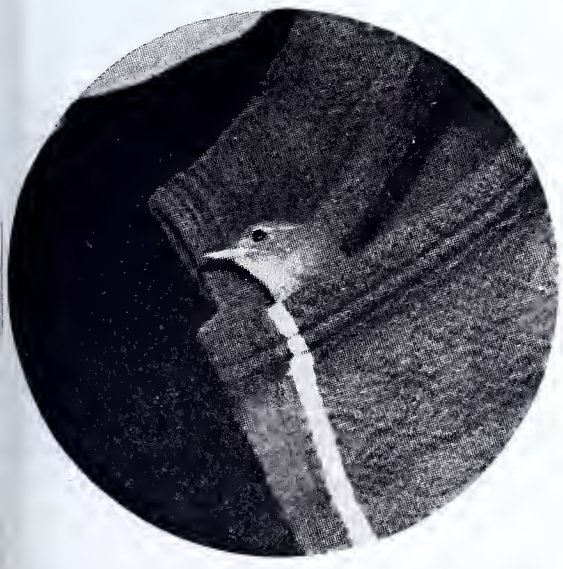

Left: Hal H. Harrison of the Valley Dally News, Tarentum, submitted these interesting photographs of a house wren that nested in a pair of swimming trunks belonging to his neighbor, Wade E. Heilman, a Kittanning attorney.

Right: This photo. submitted by Charles B. Baum, is self-explanatory.

THIS DEER WAS CAPTURED AND RESCUED FROM THE DOGS MAY 5TH 08 AFTER SWIMMING THE SUSQUEHANNA RIVER 7/8 OF A MILE WIDE; BY H.M. STAHLER AT ROCKVILLE PA.

H. M. STAHLER. THE RESCUER OF THE DEER.

# Spring Color Change of the New York Weasel

By Fred A. Glover*

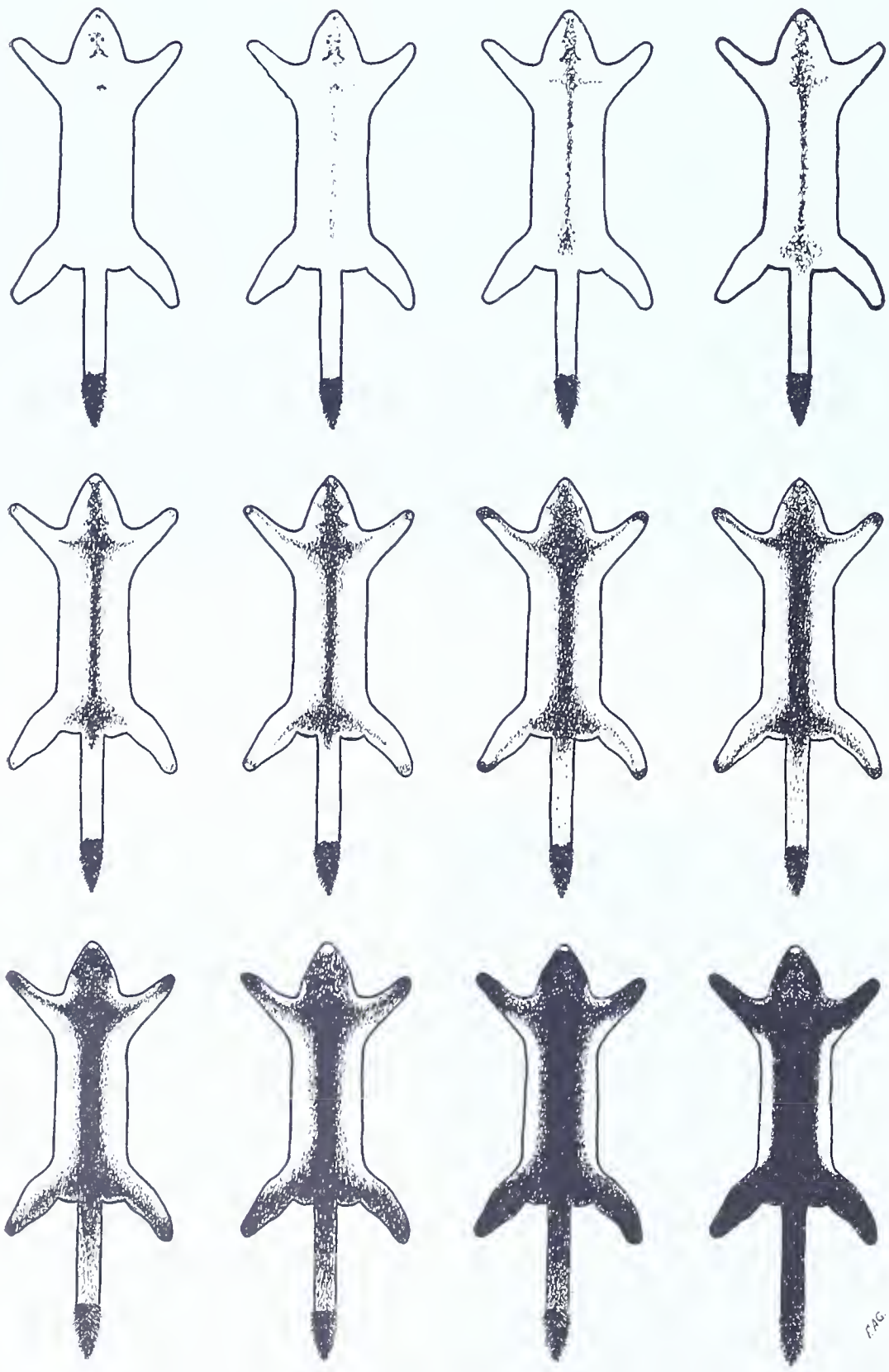

Figure 1.—Spring color change of the New York weasel (Mustela noveboracensis noveboracensis) from March 13 to April 4, inclusive, at two-day intervals.

MUCH discussion has been presented on the seasonal color change of weasels. Very little specific description, however, has been presented. Miller (1931) described the spring and fall moult of the long-tailed weasel *(Mustela longicauda)* in Colorado. Hamilton (1933) discussed the spring and fall moult of the least weasel *(Mustela cicognanii)* and the New York weasel *(Mustela noveboracensis noveboracensis)* in New York.

It is now generally known that the color change is brought about by a seasonal moult. Formerly it was believed (Coues, 1877, from Hamilton, 1933) that the color change was effected by a change in the presence or absence of pigment in the hairs.

On March 13, 1942, the writer was fortunate in receiving a white New York weasel from the Pennsylvania Game Commission's Loyalsock Experiment Station, that had been caught in a live trap. The animal was an adult male New York weasel. It was very large and weighed 260.5 grams (9.2 ounces). The animal was held in an indoor cage during the period in which the following observations were made. Figure 1 shows the complete color change during the period of observation.

The weasel had already begun its spring moult, as was evidenced by a few brown hairs on the nose, forehead, and between the shoulders. With the exception of the scattered brown hairs just mentioned and the black brush at the tip of the tail, the weasel was entirely white. By March 15, two days later, the nose, forehead, and top of the head were brown. There was a small, prominent, white spot on the nose immediately in front of the eyes. The mottled, brown patch between the shoulders was about one inch square. A few brown hairs were observed along the dorsal surface of the back, giving a mottled, salt-and-pepper appearance. A thin line of brown extended down over the shoulder blades.

Two days later, March 17, the dorsal area had lengthened and widened. The face and forehead were evenly brown. The brown on the head had extended and joined with the area on the shoulders. A brown, oval patch had developed on the dorsal surface of the hips. On March 19 the new hairs became visible back of the ears and the brown area widened across the top of the neck, but most of the neck remained white. A brown stripe about three-fourths of an inch wide and fringed by scattered brown hairs covered the back. The back stripe extended on to the base of the tail.

*(Continued on page 32)*

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[1] Paper No. 35 from the Pennsylvania Cooperative Wildlife Research Unit. Fish and Wildlife Service (U. S. Department of The Interior), The Pennsylvania State College, the Pennsylvania Game Commission, and the American Wildlife Institute cooperating.

Authorized for publication on August 4, 1942 as Paper No. 1116 in the journal series of the Pennsylvania Agricultural Experiment Station.

[2] Graduate Assistant.

# SAWMILLS IN DEFENSE AND CONSERVATION

*By John Sadam**

Today, as never before, private landowners and Federal and State conservation agencies are united in one big effort—that of supplying timber to meet the war needs. Along practically every large valley in Pennsylvania one can hear the whirr of the portable sawmill or see the smoke rising through the trees along the lower benches of the mountains, indicating a sawmill set. So if you are training a dog or are on a hunting trip this fall beware of that familiar call "TIM—BER! !" Thousands of such calls echo and re-echo daily through our wooded areas in Pennsylvania as tree after tree falls under the lumberman's axe.

Private landowners of both farm woodlots and large wooded areas are moving hundreds of thousands of board feet of lumber and thousands of railroad ties daily from scattered locations throughout Pennsylvania. The Soil Conservation Service has initiated a program to sell mature timber from Resettlement Lands in Northern Pennsylvania under supervision of professional foresters. The Pennsylvania Department of Forests and Waters recently launched a cutting program whereby they expect to harvest over 100,000,000 board feet of lumber, utilizing the mature timber scattered over the 1,657,109 acres of State Forests. The Pennsylvania Game Commission for the past several years has had in operation a cutting plan whereby small sales of mature timber on State Game Lands have been made to utilize the timber and at the same time provide improved habitat to help conserve our wildlife. These latter cuttings are now being increased on the 700,000 acres of sportsmen-owned lands in an effort to meet the defense needs.

Today as one travels through rural Pennsylvania he can see make-shift mills capable of handling only a few thousand board feet of lumber per day, mills constructed by farmers and woodlot owners and utilized to saw up the limited number of logs that the landowner and his family can cut and skid from the woodlot to the mill.

On the other hand, it is not uncommon to see large mills, many of them new, set up by professional lumbermen and run by powerful Deisel engines or new gasoline motors. These larger mills, operated by hired crews often cut the lumber from logs hauled in by surrounding landowners who are not so fortunate to have a mill of their own, but who still wish to do their part in meeting the nation's need. Whether the timber comes from land owned by professional lumbermen, by State or Federal Agencies, or by small farm and timberland owners, the thoughts are the same—"Let's provide our share to help defend Democracy".

Many readers will ask, "What part do these forest products play in defense? For what are they used?" These are natural questions and deserve some explanation.

First, let us consider the railroad ties that are being sawed out in ever-increasing numbers. These are being shipped or trucked to all parts of the United States. They are used to lay spur railroad lines to troop encampments, ammunition dumps, supply centers and new defense industries. Many railroads are so busy that extra switches and sidelines have had to be built. The heavy hauling of troops, supplies, and civilian population has increased the maintenance needs and thousands of new ties are being utilized by each railroad. New ties play a very important part in war-time transportation.

Although the average citizen realizes that there is an increased demand for lumber, it is doubtful if he ever summed up the various uses for this material. Airplanes and parts need the protection of heavy lumber crating when being shipped to war zones. *Science News Letter* recently said, "Enough lumber is used in crating a bomber to build a five room house". This is almost unbelievable but undoubtedly the truth. The packing cases for guns, 'planes, ammunition, and other war supplies require millions of board feet of lumber. Barracks to house our ever-increasing armed forces also require vast amounts of lumber. Although the construction of homes and other buildings has been curtailed due to priorities, the percentage of lumber used in approved home construction has increased.

*(Continued on page 32)*

**Private landowners and State and Federal Agencies are moving hundreds of thousands of board feet of timber to meet the war needs.**

**Along practically every large valley one can hear the whirr of the portable sawmill.**

*Game Land Technician Division "D."

# ★ ★ ★ CURRENT TOPICS ★ ★ ★

Hon. S. Harold Fisher

## A Compliment

During May T. D. Gray, Director, West Virginia Conservation Commission, visited our State Wild Turkey Farm in company with the Chief and several members of our Division of Propagation and Research.

What he thought of the farm is eloquently expressed in the following quoted statement taken from "West Virginia Conservation," the official monthly publication of that State:

"It was particularly interesting to visit the Pennsylvania turkey farm where the state is rearing turkeys for use in restocking areas suitable for this game bird. Their practice is to place hens in pens in wooded areas known to be frequented by wild toms, which mate with the penned hens. Other hens are mated to toms at the farm. Young turkeys from those mated to wild male birds are markedly wilder than those mated to toms which had been at the farm for a year or more. Indeed there is so much difference between the two groups of young that one need not be told which poults were the off-spring of pen-reared birds and which were the offspring of wild matings. Poults from wild-mated birds refused to emerge from brooders until driven out and then remained a few minutes, only, before returning to cover. Poults resulting from farm matings remained out of cover and paid little attention to human visitors.—T. D. Gray.

### Big Storm of 1940 Was Aid to Grouse

Word comes from the New Hampshire Fish and Game Department that ruffed grouse are more plentiful in that State now than for many seasons past. It was thought that last fall's banner grouse year represented the top of the cycle but officials say favorable conditions the rest of the present summer will bring the best grouse hunting in years. Officers credit the increase partly to results of the hurricane of November, 1940. The fallen trees have provided good cover and nesting places and furnished additional food in the form of grubs and insects.

### NEW COMMISSIONERS

The Commission and the sportsmen are indeed happy to welcome into their cooperative fraternity two new members in the persons of Hon. S. Harold Fisher of Huntingdon and Hon. Harold Moltz of Williamsport.

To many sportsmen these names are synonymous with hunting, fishing, and outdoor life in general. The woods and fields were their playgrounds from the time they were knee-high to grasshoppers. As Mr. Moltz puts it, "I started with my first gun and bird dog at 13 years of age, and there has never been a season since that I have not found some time to shoot. During the 20 years I was engaged in the lumber business I was in the woods most of the time and had an unusual opportunity to study and observe the game in our own and a number of other States." Mr. Moltz, who is now president of the Moltz Chevrolet Company, Williamsport, and vice-president of the Moltz Lumber Company of Lake Toxaway, North Carolina, is very much interested in trap and skeet shooting, field trials, and breeds Irish setters.

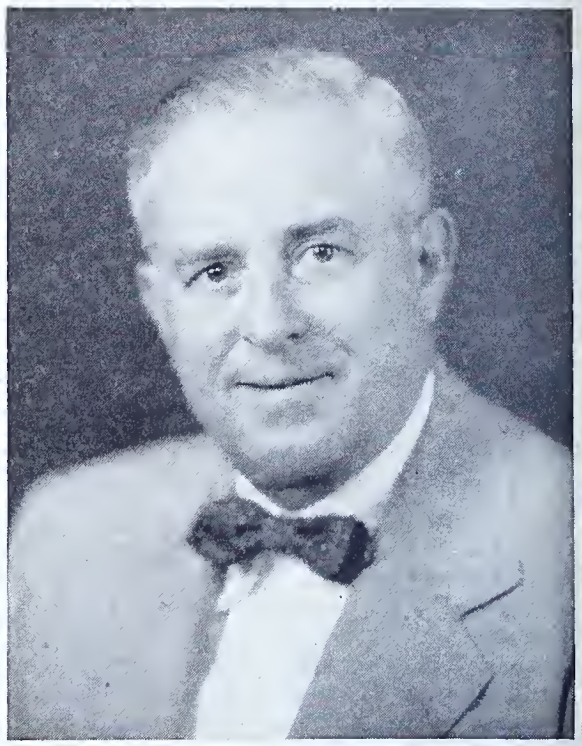
Commissioner Fisher, who is in the interior decorating business in Huntingdon, has had a long and colorful career as a sportsman. His interest, too, developed as a boy in early years, and out if it grew many affiliations which helped the cause of wildlife no end. He is Executive Director of the Huntingdon County Council of Defense, was chairman of the Forestry Committee, Huntingdon County Game, Fish and Forestry Association for two years, during which time he inaugurated a Chestnut Tree Planting Program which was very successful. He was also president of the organization for two years and for the past three years has been the secretary of the Huntingdon County Federation of Sportsmen's Clubs. He has not only organized many associations but has been instrumental in developing programs which have kept them active and interested throughout the years.

Both new Commissioners were appointed on August 13. Mr. Fisher succeeded Hon. G. I. Phillip, Alexandria, and Mr. Moltz succeeded Hon. S. C. Castner, Williamsport. It is a coincidence that both should have the same first names.

### *In Memoriam*

CHARLES L. WETZEL

Born January 1, 1861, at Beavertown, Snyder County. He was a surveyor for the Department of Forests and Waters from 1907 to 1923. Then he was employed by the Game Commission as a surveyor from March 17, 1924 until his retirement on November 1, 1929. During his service with the Commission he surveyed boundary lines of large numbers of tracts of lands the Commission purchased which are now State Game Lands.



Hon. Harold Moltz

## Childs Ties Skeet Record

Dr. Leroy W. Childs of Lake Kerr, Florida, equalled the National Skeet match record at Syracuse on August 9 when he smashed 250 straight targets to win the coveted 12-gauge National skeet title. This was the high point of the Eighth National Skeet Championships held at the Onondaga Skeet Club August 5th-9th, inclusive.

H. L. Brown of San Antonio, Texas, won the shoot-off for second place in the 12-gauge from Dave Sklar of Brooklyn, N. Y., after they had tied at 249. Private Dick Shaughnessy of Dedham, Mass.—now stationed at a Texas Army Corps Training Station—won third place by shooting 200 straight in the shoot-off with eleven others who had tied at 248. Shaughnessy also won high-over-all honors with a score of 543 out of 550. He won the sub-small gauge title and had perfect scores in the small-gauge and 20-gauge events, only to lose in the shoot-offs.

### Ashbrook To Supervise War Fur Industry

Frank G. Ashbrook, in charge of the Fur Resources work of the Fish and Wildlife Service, United States Department of the Interior, for the past 20 years, has been appointed as an advisor to the War Department on furs and the fur industry, according to an announcement made by Secretary of the Interior Harold L. Ickes.

Autoists who conserve tires and gasoline by reducing their speed will also save the lives of many wild birds and mammals, predicts the Fish and Wildlife Service, United States Department of the Interior.—We have already noticed this in Pennsylvania.

# ★ ★ ★ CURRENT TOPICS ★ ★ ★

## "The Making of a Shooter"

**A Motion Picture Dedicated to Safety in the Use of Sporting Firearms.**

The Sporting Arms and Ammunition Manufacturers' Institute announce completion of a new 16mm. Kodachrome motion picture, "The Making of a Shooter", in both sound and silent versions. This film—part of an extensive Institute program to advance the proper handling of firearms and to help keep shooting a safe sport—will be available to responsible groups of sportsmen and others for showing upon request.

While the picture is primarily a safety film, it also presents in a most effective manner the recreational appeal and character-building possibilities of hunting and other forms of shooting. It traces the development of a loveable youngster, under expert supervision, into a real sportsman with a full knowledge of how a gun should be handled safely and efficiently, and how he should conduct himself with firearms at all times.

Sequences show Jimmy, a youngster, hunting with his dad for upland birds, waterfowl and big game. Here, as at the 1941 Championship shoots, which are also depicted in the reel, emphasis is placed on the safe handling of firearms. The action ends with the youngster meeting an emergency with flying colors, and winning the applause of his proud father for showing himself to be a true sportsman and a safe shooter.

The picture, produced by professional movie technicians under the direct supervision of arms experts, is a happy combination of authenticity and fine color photography.

The Sporting Arms and Ammunition Manufacturers' Institute, as its contribution to the cause of safety, will lend copies of this film to sportsmen's clubs and other interested groups for showing without charge. The only expense which those requesting loan of a copy will assume is that of transportation costs both ways. Most of the State Game Departments and such organizations as the National Rifle Association, the Boy Scouts of America, the 4-H Clubs and the National Safety Council will assist in its distribution.

Sportsmen's or other groups wishing to show the film, or desiring further information, should write the Sportmen's Service Bureau of the Sporting Arms and Ammunition Manufacturers' Institute, 103 Park Avenue, New York, N. Y., well in advance of the date the showing is planned.

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The Game Commission has received communications from Dr. F. C. Lincoln, in Charge of Distribution and Migration of Birds, U. S. Fish and Wildlife Service, Chicago, Illinois, to the effect that two birds carrying bands No. 140-98214 and 141-7392 were Chimney Swifts. The one was banded October 3, 1940 at Macon, Georgia, by R. J. Fleetwood and the other was banded September 2, 1941 at the University of Tennessee, Knoxville, Tennessee, by Dr. Henry Meyer.

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A good mascot for a nudist camp would be a Mexican Hairless dog.—*Typo Graphic*

Hon. Laning Harvey

## In Memorium

Both the Commission and the sportsmen lost another good friend through the death of Hon. Laning Harvey, former State Senator and member of the Game Commission, who died on August 4, at his home in Bear Creek, Luzerne County.

Mr. Harvey served with the Commission from September 17, 1910 until May 18, 1915, the youngest sportsman ever appointed to serve in this important capacity. He was always vitally interested in the affairs of hunters and fishermen. The former Senator also served on the Board of Public Charities under Governors Stuart, Tener and Brumbaugh, and was former president of the Wilkes-Barre baseball club in the New York-Pennsylvania League.

The funeral was held at the Chapel of St. Stephen's Episcopal Church near his home. The interment was in Hollenback cemetery, Wilkes-Barre. Uniformed representatives of the Commission from Division "B" acted as pallbearers. The honorary pallbearers included H. Richard Lewis, Arthur E. Nicholson, Sr., Melvin Robbins, William H. Conyngham, Attorney Gilbert McClintock, Col. Ernest G. Smith, and former or present members of the Game Commission as follows: William B. McCaleb of Harrisburg, who served on the Commission with Laning Harvey; John Q. Creveling, Wilkes-Barre; Ernest E. Harwood, Hazleton; and Executive Director Seth Gordon, Harrisburg. The only other surviving Member of Mr. Harvey's period of service on the Commission is Hon. John M. Phillips, of Pittsburgh.

## Ma Mallard Goes High Hat, Leads Brood To Frog Pond

**Feels Public Garden More Cultured Than Charles River, Despite Dangers.**

**By JACK BROUDY**

Ma Mallard, a thrifty housewife who supports herself and 13 children on worms, popcorn and peanuts, has just opened housekeeping on a second front—the waterfront of the Public Garden Swanboat Sea.

Mrs. Mallard, a wild duck who considers the battle of life a gay skirmish, finds her outsize family no cause for brooding. Pa Mallard is getting his mail elsewhere, but Ma Mallard, not one to duck her responsibilities, is bringing up her daddyless ducklings with utmost duckorem.

When she found that her home on the Charles River basin did not quite live up to the best ducktrines of feathered society she decided to bring her family over for a daily dose of culture in the more refined waters of the Garden's Back Bay bayou.

Having a long lease on the Charles River apartment, Mrs. Mallard can not give up the place altogether. Consequently, it is necessary to commute to the Garden with her infant armada. It's quite a problem in navigation, since the 13 ducklings are no bigger than meatballs and have a tendency to waddle in two or more directions at once. Getting them to and from the Garden requires considerable ducksterity, but Ma Mallard has still to lose one by rigor motorist or duckapitation.

Early risers along Beacon Hill can see the Mallard family waddling along Chestnut street and across Beason street to the Garden. The sedate mother, with her greyish-brown feathers banded in blue, waddles ahead at a brisk pace, while the ducklets stagger, stumble and wobble in her wake. It's every man for himself and the butcher take the hindmost.

Once the family has arrived at the Garden the maternal ductator orders the feathered fleet into the water. For more than an hour they swim in strict formation, like destroyers convoying a battleship. Ma figures out the naval quacktics and the fuzzy ducklings deploy smartly under unsealed orders.

Maneuvers over, the Mallard family scrambles ashore, lunches on a salad of crackerjack, beetles and dandelions and waddles home again.—Boston Traveler.

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Sometimes a fool, rushing in where angels fear to tread, finds something that makes angels regret their timidity and lack of initiative.—*Typo Graphic*

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The whole world is hot!—*Typo Graphic*

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"When you can't think, go for a long walk," advises someone—probably a shoe manufacturer.—*Typo Graphic*

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Another typographical slip: "The doctor felt the patient's purse and announced there was no hope."—*Typo Graphic*

# ★ ★ ★ CURRENT TOPICS ★ ★ ★

Officers of the new Conservation Law Enforcement Chiefs' Association, organized in Harrisburg on August 17, and some representatives of the twelve eastern states attending the sessions are shown above. They are, front row, left to right: Richard T. Norris, of Maryland; William C. Shaffer, of the Pennsylvania State Game Commission, who was elected the first president of the new organization; Thomas E. Rose, of Connecticut, vice-president. Back row: Harry E. Cudney, of New Jersey; and Harold N. Gibbs, of Rhode Island, secretary-treasurer.

## Charles B. Baum Recovering

Charles B. Baum, Special Investigator for the Game Commission, who underwent a serious major operation some weeks ago, is now convalescing at 1829 State Street, Harrisburg. Only Charlie's fine physique and stamina pulled him through, but now he's straining at the leash. Gets monotonous around the house now he says. Wants to talk shop with the boys; above all to hear from some of them. Whatever you say to him don't mention drinking water out of a glass straw. Be seein' you, Charlie.—The Editor.

## The Jitterbug Kid

### R. Stanley Cooper

A firm and forceful footstep was heard approaching down the hall
The man with the chin whiskers had come to make a call.
He stopped as he reached room thirteen and stepped inside the door
His face was serious as he said "We've got to win this War."

"I need a certain type of man for whom I've vainly sought
And so I've come to take from you the best man that you've got."
A smile appeared on every face; a twinkle in each eye
For each of us were confident we were the better guy.

I jumped up, my face aglow, I thought that I was in
"Sit down," he said "I can't take you, you've got a double chin."
His glance went to the corner where a lad with might and main
Was pounding away at his machine as though he were insane.

He whistled hot, he whistled sweet, he whistled in between
The contortions of his body were the weirdest ever seen.
As "Uncle Sam" watched intently, my heart began to tug
When quietly he spoke and said "I'll take that jitterbug."

And so Bill Schaffstall went away; a boy we won't forget
I know I'll miss him deeply when I need a cigarette.
I had a dream the other night the scene was No Man's Land
The Allies were making what appeared to be a desperate last ditch stand

The Japs advanced o'er the blackened earth and the smoke hung in the air
But when they reached the other side they found no quarry there.
Suddenly on the dark grim night there arose an unearthly sound.
And a figure emerged from a wooded ridge and began to prance around.

Thus began a hot jitterbug tune as only our "Bill" can
As he leaped and twisted here and there like an eel in a frying pan.
The Japs who had gone thru battle and had faced both shot and shell
Had never encountered this before, it seemed to come from Hell.

They turned around in wild retreat and started in to run
And on that eventful day there began an eclipse of the Rising Sun.
The years rolled swiftly onward and the Axis met their doom
Move over in the Hall of Fame and give our hero room.

For Bill made his contribution to end this thing called War
By adopting unorthodox methods that had never been used before.
It is thru such boys as Bill that our liberty was bought
So our only advice to you is this just give 'em all you've got.

## New Organization

The first gathering of the Chiefs of the various Conservation Law Enforcement agencies of the northeastern states—in fact, probably the first gathering of its kind in the United States was held in the Senate Caucus Room, State Capitol, Harrisburg, August 17-20, 1942, at which time a permanent organization was established and officers elected. For some time the heads of the Law Enforcement Divisions of a number of eastern states felt that a separate organization would enable them to meet and discuss items of common interest.

The States and the Commonwealth elected to membership during the conferences are Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, Vermont and West Virginia.

Officers elected for 1942 were W. C. Shaffer, president, Pennsylvania; Thomas E. Rose, vice-president, Connecticut; and Harold W. Gibbs, secretary-treasurer, Rhode Island; and the officers for 1943 are Thomas E. Rose, president, Connecticut; Richard Norris, vice-president, Maryland; and Harold W. Gibbs, secretary-treasurer, Rhode Island. Mr. Harry Cudney of New Jersey was also present at the meeting.

Representatives from only five States were able to attend the organization meeting, due chiefly to transportation problems and illness.

The general conference, which followed an address of welcome by Honorable Seth Gordon, Executive Director, Pennsylvania Game Commission, included discussions on Undercover Methods; Possession, Sale and Transportation of Deer; The Relationship Between Training and Morale; Duties and Responsibilities of Conservation Officers; Gasoline and Tire Rationing Problem; Cooperation with the FBI; Cause and Remedy of Hunting Accidents; Compensation of Conservation Officers; Uniform and Equipment Problems; Remarks by Hon. Charles A. French, Pennsylvania Commissioner of Fisheries; Training Conservation Officers; and Proposed Legislation.

W. C. Shaffer, Chief of the Division of Law Enforcement of the Pennsylvania Commission was host to the conference, having fostered interest in it for some time, along with representatives of several other States and Commonwealths. A dinner for the attending guests and field and staff officers of the Commission was held Tuesday evening, Aug. 18, at 6:30 P.M.

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The cutie advises girls never to marry volunteer firemen. There's no telling when a siren will break up their happy homes.

*—Typo Graphic*

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The ladies' sewing circle met on Tuesday. They didn't put much sewing together, but they took a lot of reputations apart.

*— Typo Graphic*

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Sunday automobile driving may be dangerous, but it has its bright side too. It offers a good chance for you to meet a pretty nurse.

*—Typo Graphic*

# Gets Shooting Honors

Merton J. Golden, Supervisor of Division "A", and top-flight handgun expert, attended the combined U. S. Marine Corps Marksmanship Instructors' School and the Eastern Small Bore Rifle Association's 21st annual rifle and pistol tournament at Quantico, Virginia, and returned with a suitcase full of shooting honors.

He was first in the center-fire National Match Course, .22 caliber aggregate, center-fire aggregate, and grand aggregate.

He was second high in the .22 caliber National Match Course, .38 caliber Camp Perry Police Course, .22 caliber timed fire at 25 yards, center-fire rapid fire at 25 yards, and the .38 caliber slow fire at 50 yards.

Golden's third place was in the center-fire event at 25 yards, timed fire, and fourth position in .22 caliber slow fire at 50 yards.

Incidentally, Golden brought back an authoritative and interesting commentary which rates as a substantial reply to critics of wartime shooting matches, who have suggested that such civilian events, at least, should be abandoned for the duration in the interest of conservation.

"I'm not going to attempt to quote literally Maj. George O. Van Orden, commandant of the base, who spoke to the assembled shooters," Golden said, "but this, in effect, is what he told us: An average of 15,000 highly trained marines are turned out each year at Quantico. Of the approximately 15,000 who went through there last year, it was found that only 500 had ever handled firearms previous to their enlistment. Frankly, he didn't think that bore out our reputation for being a nation of riflemen. But he pointed out that, in the case of those who had previously handled arms—even men whose experience with rifle or pistol could be described only as casual—valuable weeks of training were saved. In other words, those who had the mere fundamentals flashed right ahead."

The matches, sponsored by the Marine Corps, included two days of instruction for civilians. Golden participated under the classification of expert.

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Lost: On July 3, 1942, Model 94, Winchester 30-30 carbine, serial number 1153895. Please contact Dr. F. C. Alimenti, 604 Main St., Old Forge, Pa.

## OFFICIAL 1942 OPEN SEASONS AND BAG LIMITS

(AS FIXED BY COMMISSION AT MEETING ON APRIL 30, 1942)

(All Shooting Hours Based on Eastern War Time)

Open season includes both dates given, Sundays excepted for game. On October 31 no hunting of any kind before 9 A. M. With this exception, shooting hours daily are 8 A. M. to 6 P. M., except from July 1 to September 30 inclusive, 7 A. M. to 8:30 P. M. Traps may not be set before 8 A. M. on the first day of any season for trapping in open counties. Raccoons may be hunted at night, with a noon-to-noon daily limit.

| UPLAND GAME (Small game possession limit three days' bag) | Bag Limits Day | Bag Limits Season | Seasons Open | Seasons Close |
|---|---|---|---|---|
| Ruffed Grouse | 2 | 10 | Oct. 31 | Nov. 28 |
| Quail, Bobwhite | 5 | 15 | | |
| Wild Turkey (See 10 counties closed below)* | 1 | 1 | | |
| Ringneck Pheasants, males only | 2 | 12 | | |
| Grackles (commonly called Blackbirds) | Unlimited | | | |
| Squirrels, Gray, Black and Fox (combined kinds) | 5 | 20 | | |
| Rabbits, Cottontail | 4 | 20 | | |
| Hares (Snowshoe or Varying) | 2 | 6 | Oct. 31 | Nov. 14 |
| Hungarian Partridges (2 counties only)* | 2 | 8 | | |
| Squirrels, Red | Unlimited | | Oct. 31 | Sept. 30, 1943 |
| Raccoons, by individual or hunting party: | | | | |
| Upper Zone: (17 counties)* | 2 | .. | Oct. 20 | Jan. 15, 1943 |
| Lower Zone: (50 counties)* | 2 | 15 | Nov. 10 | Jan. 15, 1943 |
| Raccoons, by trapping (See 15 counties closed below)* | | .. | Nov. 10 | Jan. 15, 1943 |
| Woodchucks (Groundhogs) | 5 | Unlimited | July 1 | Sept. 30 |
| Bear, over one year old by individual | 1 | 1 | Nov. 18 | Nov. 21 |
| Bear, over one year old by hunting party of three or more | 2 | 2 | | |
| Deer, male with two or more points to one antler | 1 | 1 | Nov. 30 | Dec. 12 |
| Deer, as above, by hunting party of six or more | 6 | 6 | | |

**NO OPEN SEASON**—Hungarian Partridges (except as above noted), Sharp-tailed Grouse, Doves, Antlerless Deer, Elk, Cub Bears and Otters.

**FUR-BEARERS**—(Traps not to be placed before 8 A. M. on any opening dates)

| | | | |
|---|---|---|---|
| Minks | Unlimited | Nov. 10 | Jan. 15, 1943 |
| Muskrats (By traps only) | Unlimited | Dec. 1 | Jan. 15, 1943 |
| Beavers (By traps only, statewide)* | 3 | Feb. 15 | Feb. 28, 1943 |
| Skunks | Unlimited | Nov. 10 | Jan. 15, 1943 |
| Opossums | Unprotected until September 30, 1943 | | |

**AN APPEAL TO TRAPPERS**—In order to avoid destroying game and injuring dogs, trappers are requested to refrain from setting traps in trails. All traps must be tagged; durable substitute for metal tag may be used.

### *SPECIAL COUNTY REGULATIONS

**Hungarian Partridges**—Hungarian Partridges may be hunted only in Cumberland and Franklin Counties. All other counties are closed.

**Turkey**—No Turkey season in Cameron, Clarion, Clearfield, Elk, Forest, Jefferson, McKean, Potter, Warren and Westmoreland Counties.

**Raccoon Hunting**—

**Upper Zone:** This zone comprises the counties of Bradford, Cameron, Centre, Clearfield, Clinton, Elk, Jefferson, Lackawanna, Lycoming, McKean, Pike, Potter, Sullivan, Susquehanna, Tioga, Wayne and Wyoming.

**Lower Zone:** This zone comprises all counties not included in the Upper Zone.

**Raccoon Trapping**—No raccoon trapping in Beaver, Berks, Butler, Cambria, Chester, Dauphin, Delaware, Jefferson, Lancaster, Lawrence, Lebanon, Luzerne, Northampton, Schuylkill and York Counties.

**Beaver Trapping**—Beaver trapping in all counties. Non-Residents may not trap beavers in Pennsylvania. One person may set, tend or operate 10 traps only. Persons trapping beavers are required to keep the trap tags above ice or waterline to facilitate identification without disturbing the traps. To expedite the tagging of beaver pelts as required by law, trappers are requested to have them tagged in the district or county in which taken.

Snares—No counties open to use of snares this winter.

**FEDERAL SEASONS MIGRATORY GAME BIRDS**—

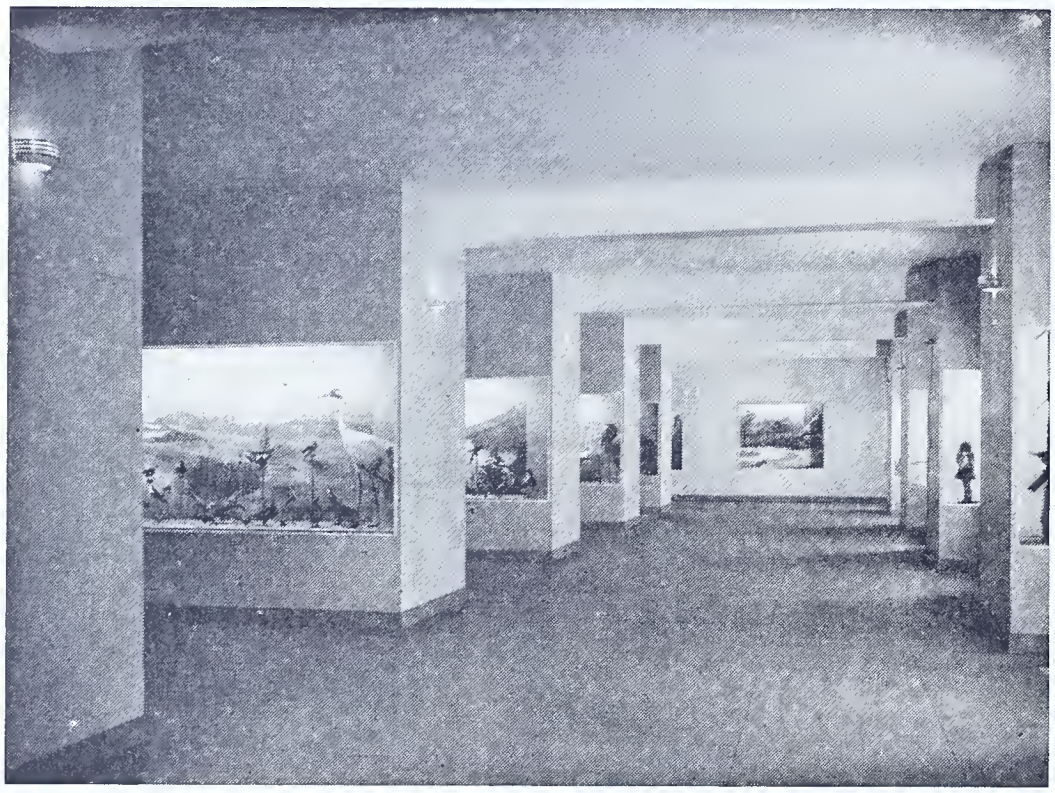
| | | | |
|---|---|---|---|
| Rails and Gallinules (Except Sora and Coot) | 15 combined kinds | Sept. 1 | Nov. 30 |
| Sora | 15 | Sept. 1 | Nov. 30 |
| Woodcock (Possession Limit—8) | 4 | Oct. 24 | Nov. 7 |
| Wild Ducks (See Restrictions) | 10 | Oct. 15 | Dec. 23 |
| Wild Geese | 2 combined kinds | | |
| Coots (Mudhens) | 25 | | |

***RESTRICTIONS**—Daily bag limits—DUCKS: 10 in the aggregate, may not include more than 3 Redheads or Bufflheads, or 3 of these combined species, and 1 Wood Duck.

**POSSESSION LIMITS**—Ducks, Geese, Brant and Woodcock: Twice the daily bag (except on opening day). BUT ONLY ONE (1) WOOD DUCK MAY BE POSSESSED AT ANY TIME. All other migratory birds: One day's limit only. Possession limited to 30 days after season.

**SHOOTING HOURS**—(Eastern War Time)—Migratory game birds: From beginning of respective seasons to Oct. 30, inclusive, sunrise to sunset; Oct. 31, 9 A. M. to 6 P. M.; Nov. 1 to end of respective seasons, 8 A. M. to 6 P. M. (unless sunrise occurs later or sunset earlier, when Federal sunrise-sunset regulations automatically apply.)

# ★ ★ ★ CURRENT TOPICS ★ ★ ★



The Audubon Bird Hall of the Academy of Natural Sciences of Philadelphia, which was opened to the public on October 8.

## The Mailbag

"I just read an article of yours concerning garden destroying rabbits and a possible solution. I had the same trouble a few years ago but it does not bother me any more.

"As the skunk said 'let us spray': to one quart of arsenate of lead for spraying beans, cabbage, etc., add five to ten drops of Lysol, crude carbolic acid, sheep-dip or other coal-tar derivative which has a strong odor.

"Presto! No more eating. A farmer near Marionville said the deer took 600 cabbage plants. I suggested the above. It worked. One does not eat the early cabbage leaves anyway, and by the time good growth starts there is not so much trouble. The same applies to beans. Stop spraying when beans form.

"We know the rabbit and deer are clean feeders, and these repellants do the trick."—A. M. Kennedy, Tidioute.

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### Field Notes

"While working on a cabin during vacation I heard a rustling noise in the leaves. Going over to investigate I found a weasel chasing a young rabbit. Having a hatchet in my hand at the time, I threw it and much to my surprise Mr. Weasel lost interest in rabbits permanently."—Game Protector William T. Campbell, District No. 10, Division "F".

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Exclusive of license fees, Colorado's 141,149 resident fishermen are estimated to have contributed $4,000,000 in connection with their sport; and the 34,677 big game hunters and other thousands of upland bird and waterfowl hunters $3,200,000. This, together with an estimated $7,125,525 from non-resident sources, brings the grand total, exclusive of license fees, tackle and arms, to $14,325,525.

"The men I employed to mow the refuge lines and myself killed an unusually large number of snakes this year, especially copperheads. We killed approximately 100 copperheads (as many as 15 on one day), about 10 rattlesnakes, and many non-poisonous species. Two of the non-poisonous reptiles were females, one a garter snake containing 20 young that were able to crawl when released from the body of the dead mother snake; the other female was a blackish colored snake and contained 21 baby youngsters."—Game Protector Charles H. Shannon, Division "C".

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"Jim Williams of Matamoras, Foreman for the Rockland Light and Power Company, observed a Red-shouldered Hawk alight on the 11,000 volt line and reach over to a cross arm to wipe his bill. Result: A flash of light, a fried hawk, and the high line out for ten minutes, or until the hawk was thoroughly fried, and dropped off the line."—Game Protector John H. Lohmann, District No. 7, Division "B".

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W. L. "Uncle Bert" Wright whom the old timers, both employees of the Commission and sportsmen, well remember as a former Division Supervisor of Southwestern Pennsylvania, just sent us a very interesting note, to wit:

"Many birds stay with us every summer. A ringneck pheasant hen mothering six quail was observed in our yard this week. I wish I knew the full story. They stay together, fly together, all of which seems most unusual."

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Some of the older members of the field and office staffs well remember John (Jack) A. Downes a genial draftsman in the former Division of Refuges and Lands who left the Commission sometime ago to follow his line of work more closely.

He is now with the Headquarters Company, 812th Engineers Battalion, having been graduated from Officers' Candidate School and commissioned a Second Lieutenant April 19, 1942. In a cablegram just received by his wife it indicates that he is now somewhere in the Kenya Country, of Africa.

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## Help Feed Wildlife

Two years ago the Game Commission liberated forty young ringnecks on my property. That year I raised three acres of sweet corn and through neglect left about a quarter of an acre standing. We had very heavy snows but I found out that the corn stuck well above the snow and the birds had a splendid feeding ground all winter. There was an old tumbled down hog pen near the field which served as a splendid shelter.

The plan worked so successfully that I have repeated it. Just recently my neighbor Richard Chaffe and I strolled across the field with our dogs and put up four nice cocks and a number of hens. It was a beautiful sight for a lover of wildlife. We are planning on doing the same thing this year; however, we will not only be feeding the birds but if we are lucky enough to bring one down this fall we'll have a nice dinner at no cost at all. And who doesn't like a good dinner?—Orel G. Sargent, R. D. 4, Union City.

Some of the handlers and dogs at the Cambria Beagle Club, championship trial held at South Fork, Pa.

# Mighty Oaks From Little Acorns

*(Continued from page 14)*

be done economically, bearing in mind all the time that the country needs fats and glycerine more than the individual needs the dollar.

Today housewives are encouraged to save kitchen fats for subsequent sale at local stores. On how large a scale this effort is being carried out, I have no way of knowing. Yet some people are surely taking the matter seriously. Just as Harold Gray, creator of Orphan Annie's Junior Commandos, is showing day by day what can be done, just so can any local, state or national program be conducted. Trouble is most people have to figure out how many pennies they are going to make or how much the effort is going to be worth to them personally.

The importance of our wildlife resources in the national defense program is well recognized, and as time passes and emergencies have to be met, they will be recognized more. In the years past we have managed wisely and utilized wisely most of our wildlife resources; our furs, particularly, have found ready markets and have been fashioned into useful articles of wear for our comfort. But today many of these fur resources, both wild and domestic, are adorning other than milady's fur coat.

In a news reel "short" not so long ago there was portrayed a large farm of angora rabbits. Their fur was being used as lining for helmets for the men in our armed forces. I suppose the mechanics, and cost of administration, etc., that would be necessary to save just a part of the millions and millions of wild rabbit skins that are killed annually by sportsmen would be more or less out of the question. Yet wild rabbit fur doesn't make bad lining, at least the fur that I've seen didn't.

Assuming nevertheless, that the collection, tanning, etc., of millions of lowly cotton-tail rabbit skins may not be practical, on the other hand the subsequent sale and utilization of thousands of deer hides that are taken in the United States might be practical. Roughly speaking, there were 600,000 deer taken in the United States last year, very few hides of which were saved except by those few hunters who wished to have one tanned for a tabletop or perhaps made into a jacket or gloves. In the past thousands upon thousands of skins likewise went to waste because laws prohibit the sale of deer skins. Pennsylvania now has such a law, which the Commission hopes to have remedied during the next session of the Legislature.

**Had the sale of deer skins been permitted it could have meant the subsequent manufacture of approximately 595,000 pairs of gloves.**

In the past ten years Pennsylvania hunters alone have killed over 700,000 deer, half of them does. If it had been legally possible to have saved only a third of these for tanning it would have meant much. Several pairs of gloves can be made from a good skin, the average hide yielding about three pairs. One average skin will also make up to approximately one size 40 vest, cut on a regular pattern, and two extra large skins will make up to approximately one size 38 or 40 average style jacket.

In 1940 over 195,000 deer; (49,000 antlered and 145,000 anterless) were killed in Pennsylvania. Had the sale of their skins been permitted at that time it could have meant the subsequent manufacture of approximately 595,000 pairs of gloves. Yes, the little things do make the big things. However, it takes unselfish cooperation, unswerving determination to make them possible. You must go out of your way to help—all-out!

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The happiest people are those who are too busy to notice whether they are or not. —*Typo Graphic*

Kissing a girl is like opening a bottle of olives—if you can get one, the rest come easy.—*Typo Graphic*

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Advertising creates demand which builds volume, which lowers cost, which spells profit.—*Typo Graphic*

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We know a makeup man on a newspaper who puts all Nazi news in the fifth column. —*Typo Graphic*

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Criticize yourself today and others tomorrow.—*Typo Graphic*

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Modern wives seem to think it's a blessed event if it doesn't happen.—*Typo Graphic*

**"After a little coaxing my wife decided I could go along with you."**

## Good Luck! Dick

**When the U. S. A. needs men today such as research work to do**
**They look around till they have found someone who will be true.**
**The Naval Reserve do their best to preserve our Country for the free;**
**With skill and brains they'll break the chains of threatened slavery.**
**So Lieutenant Gerstell whom we all know well is about to leave us now**
**But wherever he'll be on land, air or sea, we know he'll be a wow.**
**As he reaches the West he will meet the test that will not admit defeat**
**And by his deeds he will sow the seeds to send the Axis in retreat.**
**With his cigar nothing will mar his calm and confident bearing**
**Whatever's on tap, be it German or Jap, we know he'll be quite daring.**
**So when you fly way up in the sky remember us back home**
**For we, back here, can only cheer your exploits o'er the foam.**
**So we drink to you, up in the blue, with a smile upon your face**
**We send Good Cheer and a bottle of beer thru the intervening space.**

**R. STANLEY COOPER.**

# Game and Wild-Fur Production

*(Continued from page 5)*

Photo by Leo A. Luttringer, Jr.

**Bare fence rows furnish no cover for either livestock or song birds, both of which add their share, whatever it happens to be, to the esthetic and economic support of the farmer.**

when possible, also relied upon this supply for food and clothing. Among the first evidences of this increased demand was contravention of former laws and customs. According to Seton, it appears "that in 1684, De la Barre, Governor of Canada, complained that the Iroquois were encroaching on the country of Indians who were allies of the French. He got a stinging reply from Garangula, the Onondaga Chief, and a general statement that the aborigines had game laws; not written, indeed, but well known, and enforced with a club if need be: 'We knock the Twightwies (Miamis) and the Chictaghicks (Illinois) on the head, because they had cut down the trees of peace, which were the limits of our country. They have hunted Beaver on our lands. They have acted contrary to the customs of all Indians, for they left none of the Beavers alive; they killed both male and female.' "

"The human population of the area outlined increased rapidly between 1680 and 1760. As the game supply of Pennsylvania was becoming depleted, the legislators of that colony regulated the take by white residents in an effort to protect the food supply of the Indians. Such steps marked the end of the period when wildlife was essential to life.

"The demand for game and fur would probably have decreased as the development of agriculture and industry advanced, if the uses for game and fur had remained the same, but both whites and natives began to look for commodities to use in exchange. Furs, hides, antlers, plumage, and other wildlife products used as luxuries, found a ready market in Europe. They were a lucrative cash crop. These new uses made greater demands on wildlife than had the food and clothing needs of Indians and settlers.

"By 1900, when the population of the United States approximated 76 millions, the supply of game available for sustenance was practically exhausted. Nevertheless, there was still a heavy demand for both essential and nonessential uses. Efforts were made to protect these resources by enactment of many laws restricting the season, take, and use to which game could be put. But the demand for nonsustenance uses grew. Occupations, through the attitudes they create in people, influence the use to which game and wild fur is put Wild birds and mammals were commonplace to the Indians and hunting was a major occupation, but today it is an esthetic or recreational avocation. Relaxation and recreation are essential to the physical well-being of people who live under mental strain in this machine age, and many of them choose some use of wildlife as a means of relaxation. They spend considerable time, effort, and money to preserve and perpetuate the opportunities for such enjoyment.

"Demand for game is influenced also by its accessibility which in turn is affected by the social and economic development of the people. The Indians followed the trails on foot or worked the waterways in canoes; they had to carry the kill on their backs at least as far as their boats. Many places were so inaccessible or seldom visited that little demand was placed on wildlife there. Under improved transportation facilities, the take of game is probably more evenly distributed throughout the country than in the past. This accessibility makes wildlife available to more people and assures more complete utilization but it also reduces the number of undisturbed wildlife breeding areas.

"Statistical methods cannot be used in comparing hunting pressure today and in the past; for there are no comparable records. Licensees are now permitted to hunt only a relatively few days each year, whereas hunting was once almost a year-round occupation. There appears to be no logical way of comparing the past and the present with respect to kill. No one knows how much game the average Indian took in a year, nor are there reliable figures on game killed by the average modern hunter."

"The present demand for wildlife for hunting and trapping may be suggested graphically by statistics on the sale of licenses. However, these show only the number of applicants for the privilege of taking game and fur, and do not indicate the take. Moreover, there is wide variation in license requirements among the States: Some Commonwealths grant free hunting privileges to veterans, youths, the aged, and other groups; most States do not require a landowner to have a license to hunt or trap on his own property; some permit the residents of a county to hunt anywhere within that county without a license and some do not require a license to hunt certain species.

"Then in some places requirements are

Photo by James N. Morton

**There is no ground cover or possibility of forest reproduction in an overgrazed woodlot. Practices like these destroy timber, soil, and wildlife.**

## Game and Wild-Fur Production —Continued

rigidly enforced whereas in others they may be overlooked. Fees vary widely. There is no record of many persons who hunt and trap. Some States issue only combination licenses that permit the holder to hunt, fish, and trap, although the holder may do only one or two; other States require separate licenses for each purpose. Even with all these limitations the sale of licenses appears to be the best available statistical measure of human demand on game and fur.

"Under present conditions, the sale of hunting and trapping privileges tends to vary inversely to the density of human populations *(fig. 1)*. The number of licenses shown to each thousand inhabitants decreases as the density of human population increases. This seemingly paradoxical situation might be explained if the density of population beyond a point inhibits and restricts the sporting use of wildlife; or if the supply of game becomes so limited and the sport of hunting becomes so inferior that the sporting demand eventually drops. Perhaps the number of other available pastimes that multiply with the increased population density influences the proportionate demand. Or if the density of population corresponds closely with the occupations of the people, this may reflect the type of recreational pastimes in which they engage.

"Another way of estimating the hunting pressure in comparison with human populations is indicated in *figure 2*. This chart indicates that hunting pressure tends to be proportionate to the density of population. States having comparable population densities sometimes differ in hunting pressure and they usually differ widely in the occupations of the people.

"Degree of demand for wildlife is often influenced by social dictates. A species may be used in one part of the country but ignored in another, for varied reasons. Some game animals are looked upon as having superior sporting qualities, whereas others are considered to lack essential elements. Requirements of raw furs are determined to a great extent by fashion.

"After an evaluation of all available factors relative to demands for game and wild fur it is reasonable to conclude that there is a greater demand for game and wild fur today than in the past, and that whether judged on the basis of unit areas or of human demand, game and wild fur appear to be less abundant than formerly."

Photo by Vernon Smith

**A splendid buck, and a doe with twin fawns, snapped in McKean County.**

### Habitat

"The type of landownership, public or private, determines to a considerable degree both the use and the intensity of the use to which land is put. This influences the type and condition of existing wildlife habitat.

"Under the form of government prevalent among the Indians, all the land was tribal property and little use was made of it except for wildlife. Whenever habitat conditions permitted, game was produced to the maximum carrying capacity of the land, the only limitations being those intrinsic in nature—and the Indians. Since the principal use of the land was the production of wild animals, and the pursuit of game interfered with no individual right nor with any other desired use of the land, it is assumed that all members of a tribe had free access to the game on tribal lands.

"White men brought the system of private ownership and intensive use of the land, which progressed with settlement. Lands passed from public to private ownership by grant, homestead, sale, and other means, until today the Federal, State, and municipal Governments own or control not more than 30 percent of the total land area of the United States. Much of this is devoted to uses that inhibit or prevent the production of wildlife, and, on much of it, hunting cannot be permitted.

"Cities, parks, railroad and highway rights-of-way, reservoirs, and other special-use areas are restricted in the part they can play in wildlife production. In addition, large tracts of Federal and State lands are leased to private individuals for uses that often conflict with wildlife production or use. Many species of game and wild-fur animals must rely to a large extent upon agriculture to provide suitable habitat. Public lands even though used for agriculture are less likely to provide a cultivated habitat. The uses made of this wildlife depend largely upon the wishes of private landowners. The changes to private ownership of land, and consequently of wildlife habitat, have been so pronounced that today 72 percent of the potentially huntable land of the United States is privately owned and an additional 15 percent in public ownership is leased for private use. On these lands, habitat conditions are determined primarily by land use, the major objective of which is entirely independent of wildlife production. In fact, much of the privately owned land is so intensively used that game habitat is often destroyed. On this land, wild birds and mammals can seldom be the first consideration; their occurrence is generally incidental, if not accidental, to other land use.

"It is logical to assume, therefore, that present habitat conditions for wildlife are in general inferior to former conditions, although certain exceptions to this generalization are well known."

Following this interesting analysis the authors go into considerable discussion on the production, harvesting, social and economic importance, as well as the value of game and wild fur, origin and shifts in game and wild-fur values, its value to the individual user, to the state, to the farmer, etc.

A short chapter on the value of wild-fur

*(Continued on page 28)*

Photo by Sedlak

**The estimate of the number of fur pelts taken in various States was arrived at by using available trappers' reports in conjunction with State Game Departments' records of furs handled by dealers.**

# Your Brother's Keeper

*(Continued from page 3)*

Photo courtesy Williamsport Grit

This hunter, all too enthusiastic about having bagged both a fine normal cock and an albino pheasant, particularly the latter, is unconscious of the fact that the barrel of his gun is leaning against his arm in such a manner that if discharged it could easily blow the side of his head off.

Be sure that you check everything on the area you plan to hunt. If you meet a party that is planning to hunt over the same general territory you expect to comb, have an understanding in advance as to which section or direction each group will take. All this precaution may sound silly and unnecessary, perhaps grossly exaggerated, but too often hunting parties have come together from opposite directions and serious injuries have been inflicted simply because neither group took the time to check or determine the route of the other.

Remember, too, that a sportsman is supposed to be a gentleman—one who respects the right of others, and by others I mean the landowners, too. And speaking of landowner's reminds me of one other thing. Sometime ago the Federation of Sportsmen's clubs urged sportsmen to help farmers wherever possible for a day or two, maybe more, to harvest their crops. Now that harvest season is about over it would be interesting to know just how much cooperation local nimrods gave their farmer friends. Let's hear from the boys who helped. Write the Game Commission at Harrisburg, Please.

In closing, let me urge you to read the editorial in this issue carefully and do what you can to help Uncle Sam save gas, oil, and rubber while enjoying your hunting this fall, whether in your "own back yard," or in your neighbor's. Good hunting! Safer hunting!

# Game and Wild-Fur Production

*(Continued from page 27)*

is especially interesting and I quote it in its entirety.

### Wild Fur

"Money for wild fur may be realized by the farmer by his either trapping the animals or selling trapping privileges. The method most advantageous to the farmer depends largely upon local circumstances. Estimates as to what proportion of the total annual crop is harvested by farmers vary greatly. Recent investigations indicate that perhaps the largest proportion of wild fur is trapped by professional trappers from the cities. In some instances farmers or farm boys get money from furs trapped in their local communities. They seldom confine their activities to their own property, but the money they get, on an average, seldom exceeds $100 annually. For families on submarginal land this cash item may be of critical importance. More successful farmers do not have time to trap over wide districts, and such trapping is necessary to earn any considerable income from wild-fur animals frequenting agricultural land; however, the per-acre revenue from some muskrat marshes is said to equal that of nearby agricultural land.

"The sale of wild fur probably returns several million dollars annually to the rural population of this country. Intensive studies now being conducted under the Pittman-Robertson Act in some of the best fur-producing States indicate that considerably less than half the receipts from raw furs go to farmers and farm boys, so previous estimates were apparently too high.

"In 1929, when prices were much higher than in recent years and the take of wild fur was greater, the annual market value of this product in the United States was estimated at 65 million dollars. Some authorities maintain that this estimate is high even for that period. There has been a great decline in the take of wild furs and in the price obtained, and studies indicate that the annual gross receipt from wild fur may not have exceeded 20 to 25 million dollars in recent years.

"The sale of trapping privileges on marshlands may be of considerable consequence, but the money received for the privilege of trapping terrestrial forms of wild fur on better types of farm land is seldom an appreciable item. Usually the privilege is freely given, for the farmer is glad to get rid of foxes, minks, skunks, and some other fur animals.

"It has been repeatedly pointed out, however, that the several million dollars received by rural people for raw furs is received by farm families who are badly in need of cash to supplement their income from farming. Therefore, farmer receipts from wild fur are of much more relative importance than the market value would indicate."

Also of interest is an explanation of the difficulties encountered in making a comparative value of game and wild-fur products and of agricultural products as follows:

### COMPARATIVE VALUE OF GAME AND WILD-FUR PRODUCTS AND OF AGRICULTURAL PRODUCTS

#### Difficulties Encountered

"An estimated money value of the annual game and wild-fur crop is often compared with the sales value of some agricultural crop. The only apparent reason for this is that both are products of the soil and so are competitors, more or less, for the use of the land and for the farmers' time and resources. Because such comparisons almost totally lack a basis and yet are frequently carried to erroneous conclusions, any discussions of the subject are fraught with possibilities of mistakes, misunderstandings, and misinterpretations. However, in a report of this nature the subject cannot be ignored.

"There is almost no statistical information pertaining to game and wild-fur production and utilization. A few State game departments require hunters and trappers to report the amount of game and fur taken during the year, but the percentage of returns in these States is disappointingly low. A greater number of the State game departments require reports from buyers of raw fur; so the information on furs is more complete although still inadequate. No technique has been devised that will provide an adequate inventory of the living game and fur animals

of a State, and most States could not afford to tabulate and analyze the figures regarding the kill. The only available figures regarding the inventory or the take of game and wild fur for the country as a whole are rather crude estimates.

"For agricultural crops and livestock, on the other hand, there are reliable estimates of production, marketing, and home and farm use. The need for providing facilities in State and Federal Government for collecting, analyzing, and supplying reliable and comparable wildlife statistics is apparent.

"Then there is a decided difference between the status of ownership of wildlife and of farm crops. The ownership of game by the State in its sovereign capacity, in trust for the benefit of the people, rests upon common law and not upon statutes. The courts of the 48 States have established the ownership of all wildlife in the people as a whole—that is, in the State—which can dispose of it only according to specific laws. These laws limit the disposition of wildlife to only a few species of birds and mammals and then only by selling or granting individuals the right to take a specified number of the specified species for specific uses. The ownership of crops, however, has always rested with the individual who produces them, and their disposition usually rests solely upon the decision of the individual. It is his prerogative to dispose of them in the quantity and in the way he chooses, without too much regard for his neighbor. This is still fundamentally so, although conservative decisions of recent years indicate a vast public interest in soil conservation and orderly distribution of agricultural products.

"Who produces game and wild fur? Is it the State or the private landowner? The answer should be—Both in cooperation. But in the past this fact has not been adequately acknowledged. There is no question as to who produces the farm crops.

"With these difficulties to overcome, is it any wonder that current discussions and reports as to the value of wildlife are confusing to say the least, and sometimes give money values that are considered excessive? This is particularly true when comparing the value of the game and wild-fur crop with that of certain farm crops. In these discussions and reports the value of wildlife is frequently calculated as the estimated money turn-over occasioned directly and indirectly by wildlife, plus the estimated value of the meat and fur taken by the hunter and trapper, plus the theoretical value of the outdoor recreation; whereas the farm-crop value is the statistically estimated market value of those parts of the farm crop that are sold or used on the farm.

"Wildlife is of estimable value to the Nation for it provides esthetic, social, and recreational outlets for the people and it is the foundation of some industries and stimulates activities in many others. But it is evident that the money value frequently attributed to the annual wildlife crops is probably exaggerated."

Two other chapters in the circular which are supported by very interesting charts and tabulations, which space will not permit us to print, are an analysis of game and wild-fur produced and harvested on agricultural lands and the hunting and trapping opportunities provided by agricultural lands, both of which immediately follow in sequence.

Photo by John J. Becker

**The Delaware County Field and Stream Association recently honored U. S. Deputy Game Warden, Carl Lorup, Glenolden, Delaware County, Pa., for his many well-served years as a Game Warden.**

**In the photo Mr. Stadlemier is presenting him with a fine outboard motor for use in his work. Mr. Golden in turn presented him with a five year subscription of the GAME NEWS. These gifts were made possible by the unsolicited contributions of the members.**

### Game and Wild Fur Produced and Harvested on Agricultural Lands

"As all of the estimated favorable habitat of farm game, approximately 50 percent of that of forest and range game, and about 40 percent of that of migratory game, is agricultural land, it appears that at least 80 to 85 percent of the game has been produced on agricultural land as defined in this publication. Indications are that in recent years farm game has constituted approximately 68 percent of the kill, forest and range game 21 percent, and migratory game 11 percent.

"Evidence indicates that about 70 percent of the game reported killed was taken on agricultural land and about 30 percent on non-agricultural land. This does not take into account game taken by farmers and farm boys hunting on their own or rented agricultural lands nor does it consider that no Corn Belt, Wheat Belt, or Range State is represented in the data on hand. It is believed, therefore, that if a representative sample of the total bag of game were available, it would indicate that more than 80 percent of the game taken during recent years was killed on agricultural land. However, in a few nonagricultural States, estimates range as low as 30 to 40 percent. The estimate of 80 percent is supported by the statements of many game departments that 90 percent or more of the hunting licenses sold were used almost exclusively for hunting farm-game species and that practically all nonlicensed hunters hunt farm-game species exclusively.

"The unit weight of most forest and range game is, of course, much greater than that of farm game. However, a considerable number of units of forest and range game are taken on agricultural land, and many farm species are taken on nonagricultural land. Thus, even on a weight basis, the relationships noted would not be materially changed.

"Estimates of the number of fur pelts taken in the various States were arrived at by using available trappers' reports, in conjunction with State game department records of furs handled by dealers, and, in a few instances, game department estimates of fur animals taken by trappers. This appeared to be the most practical way of meeting the situation.

"Classifying the catch on the basis of the effective range inhabited by the species, it was found that approximately 27 percent was farm fur animals (not fur farm animals), less than 1 percent forest and range fur animals, 71 percent land and water species, and approximately 1 percent wilderness animals. It is estimated that half of the forest and range fur animals and a third or more of the land and water fur bearers were associated with agricultural land. Thus, it seems reasonable to believe that 50 to 55 percent of the fur animals taken during recent years were dependent in some degree upon agricultural land for their most productive habitat.

"Information indicates that approximately

*(Continued on page 31)*

## Farm-Game Refuge Program

*(Continued from page 15)*

half of the farms were previously posted against trespass. Sportsmen now recognize more fully than ever the troublesome economic problems confronting farmers, as well as those caused by careless or thoughtless misdeeds of hunters. It should be needless to add that future success of the program depends to a very large extent on whether hunters act the part of true sportsmen, or whether they disregard the rights and wishes of their hosts, the farmers. One careless act on the part of a single hunter may react to the detriment of hundreds of good sportsmen.

# Blue Tick

*(Continued from page 7)*

"You'll have a wonderful time darling, and think of the exercise," she said softly.

They turned off the pike and down the lane. Jim could see cars parked in the fields and farther along, in the roadway.

"Just keep on going," Mary directed. "Our place is reserved near the judging stand."

Jim looked at her askance.

"Do you know all these people?" he asked.

"Of course darling, and they want to see Tick."

He drove up to the stand and backed into a designated spot. The crowd milled around and dogs were under foot everywhere. Mary very efficiently took off her coat and replaced it with a wind breaker jacket. She patted Tick on the head and turned to Jim with a smile.

"Come along. Let's see what's going on."

Jim was going to ask about Tick but Mary paid no attention to the dog. She just walked through the crowds intent on finding judges. Tick followed obediently at her heels. His head was high and his eyes sparkled. He radiated confidence, in fact he was just cock sure of himself.

Mary paused for a second to peer through the crowd and Tick immediately sat and waited.

A woman murmured "Marvelous!" and Jim turned to see what was wonderful.

They went on until they reached the stand and Mary waited for the call. A pair had just come in. A setter and a pointer. There were murmurs of praise and speculation. These dogs had done well.

"Next," the announcer called and rattled off names.

"That's us," Mary exclaimed, and walked out to the stand.

The judge grinned broadly.

"You are handling your own dog, Miss," he asked?

"Oh, Tick doesn't need a handler," Mary replied smiling serenely.

Jim groaned.

"But that's unusual Miss," the Judge replied, "what do you propose to do?"

Mary paused, her thumb thoughtfully in her mouth.

"Can he handle himself?" she asked, "or is it against the rules?"

The Judge scratched his ear.

"You'll be at a disadvantage," he concluded.

"But I'm not entered," Mary replied, "it's just Tick and I'm sure he knows what to do."

Jim pulled his hat down grimly and hoped it would cool off because he felt sort of warm.

Mary leaned over and whispered in Tick's ear.

Tick calmly walked over to the front of the crowd and waited for the signal. He walked in the sure step of a champion and disdained even to glance at his opponent, but his nose was extensively active and he glanced over the meadow as though picking out the spot where the birds were concealed.

At the signal they were off. The dogs ranging out in front. The Judges on horse back following cautiously and their gun with them on call.

Mary watched the pointer. She seemed so confident of Tick that she never glanced in his direction.

Suddenly there was a shout and an exciting murmur ran through the crowd. Tick was on point to the right and the pointer was backing him up. It was a beautiful sight. Tick held his head high and his arrogance could be felt it was so marked. The Pointer's handler, a true gentleman if there ever was one, dismounted and flushed the covey. Tick never moved a muscle, it was perfection in the dog world.

They went on from there to another point and then disappeared around a wooded section.

Jim was overawed. He walked over to Mary and placed his arm around her shoulder.

"You've done a wonderful job sweet," he said in wonder. "It's amazing."

"But it's not me, Jim,' she pointed out, "it's Tick. He knows just what to do. Why even when I tried to make him chase that rabbit the first time, he just refused."

Jim looked at her with downright suspicion.

"Sometimes I wonder," he murmured.

* * * * * *

The meet was over, in fact they were almost home, when Mary stopped talking and asked Jim to pull over to the side of the road.

"I've got a confession to make," she admitted as she twirled the badge and blue ribbon around her finger.

Jim complied immediately. In fact he was sort of off balance since Tick had won the meet. The whole thing was fantastic, unreal and he felt in sort of a heady daze.

He pulled the car to a stop under a spreading tree and waited.

Mary reached over and threw her arm around his neck.

"Darling," she whispered, "you know the Judge? The one at the meet?"

Jim looked at her in doubt.

"You mean that tall handsome fellow with the mustache, the covert coat, riding breeches and stick?" he asked airily. "Quite a ladies man if I ever saw one, but didn't pay much attention to you as I remember it."

Mary set her lips together and looked daggers.

"Well," she went on pointedly, "he might have acted as though he didn't know me but really, we are pretty well acquainted."

Jim thought of the months when Mary had been training Tick. Someone must have helped her. Suspicion swarmed up inside him. He could feel himself turn cold as he stared at Mary.

"Well," he asked shortly.

"He made a proposal to me," Mary continued blandly pushing his hat back on his forehead.

"What!" Jim cried, "Why the low down heathen. So that's why Tick won. So that's it, eh!"

But Mary continued to stroke his forehead softly.

"Now don't get excited, darling. After all I refused and that's the important part. Isn't it?"

Jim's frown turned to a glare.

"You refused what," he demanded?

Mary leaned back in the car and smiled at Jim with feminine superiority.

"$500.00 for Tick," she replied serenely. "After all, what else could he want?"

And in the back seat of the car Tick stretched luxuriously, yawned vigorously, and dropped his head between his paws to watch out of drooping eyes, the goings on in the front seat.

**AN APOLOGY**

**We owe an apology to John Beck for not giving him a credit line for his splendid cover on the September number. The worst part of it is, however, his last name was partly cropped from the cover when the magazine was trimmed. Another Beck contribution will appear on the November number. Watch for it.**

# Acres Gone Broke

*(Continued from page 9)*

thus give pleasure to those who like to do such things. In fact, if we do not protect the rabbits and the birds the time may come when people will have to go as far away to find game as I have to send to get shingles for the barn.

After all, no magic seems to permit that we may keep taking away, and using up, without the supply becoming exhausted. If we cut down trees, others must be grown or we must send further away for lumber. If we let our topsoil wash down the rivers, we must do without it, and always we do worse than before. If we mine out our plant food, we must replace it or see our crops go on starvation rations, with starvation yields for ourselves. If we shoot all our game, we must do without, or replace it. If we empty our streams and lakes of fish, we must do without, or restock. Fortunately we are learning, nowadays, how to avoid all these mistakes.

The topic assigned to me today, by the way, was "The Economics of Conservation." I thought it sounded a little too solemn; but let me remark, in conclusion, that all I know about the economics of conservation has been summed up in this story of our old farm whose acres have gone broke from too much spending and not enough conserving.

# Game and Wild-Fur Production

*(Continued from page 28)*

40 percent of the fur animals harvested were taken on agricultural, and about 60 percent on nonagricultural, land. Furs produced on agricultural lands seem to be superior to those from other types of lands. However, in each class of pelts the lower grades are represented by the greatest numbers. This is particularly true in the case of land and water fur animals, where muskrat pelts probably make up 75 percent of the total number of skins. The same situation exists, however, for all classes of pelts, with the exception of wilderness fur animals. It is probable that careful analysis would not materially change these conclusions as to the importance of agricultural land in the production of wild furs.

"This would indicate that agricultural land is much less important in the production and harvest of fur animals than of game, probably because the marsh-dwelling muskrats, most of which are taken by professional trappers, make up a very large part of the annual take of fur animals."

**Hunting and Trapping Opportunities Provided by Agricultural Lands**

To appraise the importance of agricultural lands in providing hunting and trapping opportunities, a large table was prepared. In it, it was necessary to subtract from the total land area of the United States certain lands that cannot be used for hunting or trapping. The only portion of the table for which authoritative statistics were not available deals with farmstead protection. A footnote explains how these figures were determined.

**Mr. Hunter: Please do not remove fur-bearing animals from the traps of others. After all, the trapper is working in your interests and if you rob him of his hard earned reward you are cheating a fellow sportsman and subjecting yourself to a fine of $25.00.**

For the United States as a whole two figures are given for the total potentially huntable area devoted to agriculture. One indicates 73.36 percent, the other 87.65 percent. As no data were available for private nonfarm grazing lands by States, it was necessary to make this distinction. The latter figure is the more nearly correct of the two.

In an effort to give some indication of the hunting pressure in the various States, the sale of licenses by States is shown and a unit figure is given showing the estimated potential huntable area for each license.

The publication closes with the discussion of problems in production, the hunter problem, farm-game management programs; the latter broken down includes interesting discussions of privately owned and operated holdings, club-owned and club-operated holdings, club-leased lands, farmer cooperatives, ranch hunting preserves, farmer-sportsmen cooperatives, state-managed lands, state-leased lands and state and federally owned lands.

Game Farms are also discussed together with methods of encouraging game and wild-fur production and utilization on agricultural lands.

As I said in the beginning, this publication is one which every sportsman and farmer should have in his library, and I'm told that copies can be secured for 10c each from the Superintendent of Documents, Washington, D. C.

# American Woodcocks

*(Continued from page 13)*

singing grounds, be properly scattered throughout the area.

Among favorite types in Pennsylvania are alder swamps in the lowlands and aspen clumps on the hillsides with associated growths of briars and goldenrods. Aspen thickets with a ground cover of bracken ferns, mosses, or ground pines are of little or no value as woodcock habitat. Old pasture lands supporting growths of chokecherry, apple, and hawthorn are often suitable environments, as are cutover areas on moist hillsides having a mixture of maple, waterbeech, chokecherry, blackberry, and associated herbaceous materials. Often bottomlands, containing a diversity of dense woody and herbaceous growths, furnish suitable woodcock environments. All or any of these habitats may support woodcocks during the migration, and it is in these types that hunters find most of the birds during the fall shooting season. If these environments contain openings, or are near fields that may be used as singing grounds, woodcocks will probably inhabit the area during the breeding and rearing periods. However, if the area becomes too dry during the summer the birds may leave and locate in a more favorable habitat. In the pitch pine—scrub oak area previously mentioned, it was believed that this is what happened to the birds during the summer months.

Since woodcocks are migratory it is difficult to create sound management plans that will guarantee an ample supply of birds. However, several measures may be taken to assist the bird in its struggle for existence. In Maine, artificial singing grounds were created by cutting small openings in the forest and burning the debris left. Many of these man-made singing grounds were used the following year by male woodcocks. But they are not the only wildlife animals that benefitted from this practice. Deer, ruffed grouse, snowshoe hares, and many other species of wildlife utilized these openings.

Woodcocks may also be aided by favoring such species as alders and aspens occurring on moist areas or other sites unsuitable for the production of a timber crop. On old abandoned pastures where the herbaceous growth has become too dense for woodcocks it would be beneficial to pasture the area lightly; on the other hand, some areas severely over-pastured may become suitable habitat if pastured more lightly.

Protection from over-shooting is absolutely necessary in management for woodcocks. The length of the open seasons, restriction of bag limits, and establishment of proper opening dates for the seasons are essential. The shooting of woodcocks at times when they are concentrated on limited areas due to adverse weather conditions must be regulated. Since protection of these birds has come under federal regulations many of these vices have been controlled and the birds have responded well to this action.

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Better baked beans with liberty than caviar in chains!—*Typo Graphic.*

---

The way the line of least resistance is used we are surprised it is not worn out. *Typo Graphic.*

---

Idleness is Satan's private secretary. Useful occupation begets a contented mind. —*Typo Graphic*

---

Drat the luck! Our ideas won't work unless we do!—*Typo Graphic*

---

Common sense is a windshield wiper to permit us a clear vision in the rainy periods of life.—*Typo Graphic*

---

Up to the age of sixteen a youth may be a boy scout, but from that time on he is a girl scout.—*Typo Graphic*

---

Once there was a woman driver who went to heaven. She knocked off one of the gates going in.—*Typo Graphic*

---

Success does not consist of not making blunders . . . but in not making the same ones twice.—*Typo Graphic*

# Saw Mills in Defense of Conservation

*(Continued from page 19)*

This of course is due to inability to get the steel that formerly was used in much of the basic construction of modern homes. These are just a few of the reasons for increased lumber demands needed to meet wartime needs. You could probably name many more uses in your own home community.

That sawmills are playing their part in processing timber for defense is quite evident. However, though secondary at this time, the many scattered lumbering operations are providing both new and improved habitat for wildlife. Much of the mature timber is being cut in mountainous sections where the shade of large timber and the increased grazing by deer has practically removed all undergrowth or ground cover. The shrubs and vines that normally cover a forest floor can grow and produce berries and fruit only if they receive sunlight. In a forest of mature trees they do not receive enough light—eventually causing them to die.

Logging operations in these wooded areas removes the large trees, releases the smaller timber and nut producing trees, and at the same time allows the sunlight to enter, thus stimulating and encouraging the seeding and growth of shrubs and vines. These provide the ground cover and the food so necessary to increase game and all wildlife populations. Scattered as these lumbering operations are they provide a balanced game habitat over much of Pennsylvania. Truly this "timber for defense" is a boon to wildlife.

In addition to supplying material for defense, this timber is providing a monetary return to all individuals and agencies cooperating. Although I am not familiar with the income received by various agencies, it's quite certain that thousands of dollars will be added to the funds of both the Soil Conservation Service and the Pennsylvania Department of Forests and Waters. Last year the Pennsylvania Game Commission realized approximately $23,281.23 for the sale of timber on an estimated 2500 acres. This year with the increased demand the sales should at least double that of 1941. These monies received from the sale of timber for defense use should do much in the future to help finance land, forest and wildlife management. Our present job is to continue the "Sawmills for defense", removing mature timber with proper consideration for present and future conservation needs.

# Spring Color Change of The New York Weasel

*(Continued from page 18)*

A small white area in front of the ears remained, but the white hairs disappeared gradually as the moult progressed. By March 21 both fore and hind feet were acquiring new, brown hairs while the white hairs were being shed. The rest of the darkened regions increased in extent. The facial whiskers were beginning to moult. New, short, brown whiskers replaced the white ones on the upper surface of the face first, while the lower ones remained white.

Considerable amount of white hair was present on the floor of the cage. Upon investigation, the writer noticed that the weasel aided the shedding process by pulling the white hair from the body with its mouth. The new, shorter, brown hairs were plainly visible as soon as the white hairs were dropped. Indications are that the moult was hastened by the weasel's biting and scratching.

By March 23 the forefeet had become darkened and thin line of brown from the feet and legs had joined the shoulder area. A brown line also had spread from the hips to the hind feet. New brown hairs in the facial region had extended sparsely over the cheeks. The tail remained entirely white except for the black tail-tip and the brown anal region.

The merging of dark areas occurred on the fore and hind legs by March 25. The face, cheeks, and dorsal regions of the head and neck were brown. The broad back stripe continued to increase gradually in size. Scattered brown hairs were now in evidence throughout the entire length of the tail. White hairs remained on the sides of the neck, the rear and front margins of the fore and hind legs, and along the sides of the weasel. The under surface of the animal was white.

Very little change had occurred by March 27 except for the gradual increase in brown surface area. Scattered white hairs that had not moulted in the brown regions were now tending to shed.

Two days later the animal had the general appearance of being all brown except for the sprinkling of white hairs on the front and rear margins of the legs and on the tail and the white belly. The white sides of the weasel tended to decrease slowly.

By March 31 the brown had encroached upon the front and rear borders of the legs. The tail was brown for about the front half of its length, with a few scattered white hairs in front of the black tip. Face, neck, back, hips, and legs were brown, with the exception of a few scattered white hairs. White hairs were sparsely located on the tail and in the flank region.

On April 4 the remaining white areas were obliterated, with the exception of the belly; and it was assumed that the weasel had attained the summer coat. A few scattered white hairs were perceptible, but there was an even, brown appearance. A few of the white hairs persisted for many weeks, but this slight variation was not included in the description of the main moult. The black-tip brush on the tail was being replaced by shorter, black underfur. The whiskers were brown, but some were still quite short.

The moult was completed in about 24 days. The fact that the animal was held indoors appeared to make very little difference as was shown by Hamilton (1933). The use of one weasel for such a determination of spring color change from winter white to summer brown is considered insufficient scientifically to obtain the range of pellage change dates.

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   1933. "The Weasels of New York," *The American Midland Naturalist,* vol. XIV, No. 4, pp. 300-314.
2. Miller, Frederic W.
   1931. "The Spring Moult of *Mustela longicauda,*" *Journal of Mammalogy,* vol. 11, No. 4, pp. 471-473.

# THE CANINE CORNER - - .

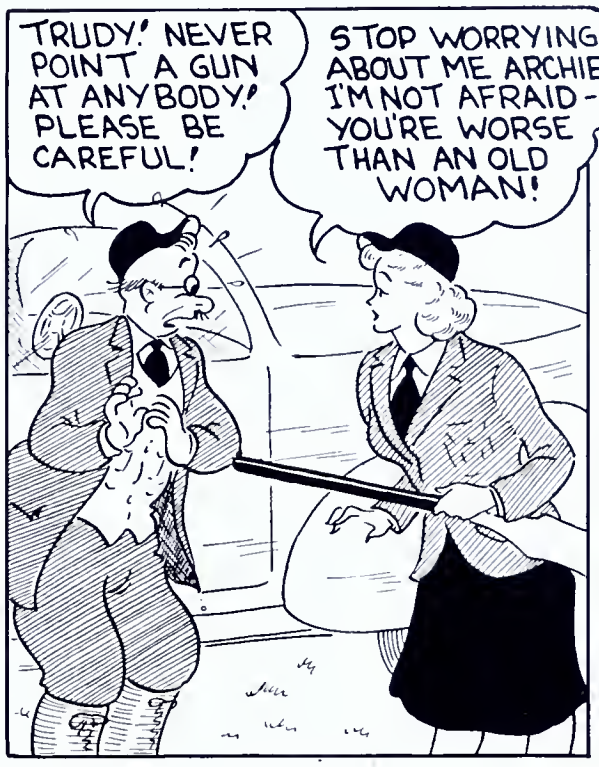
*by Evan C. Stineman*

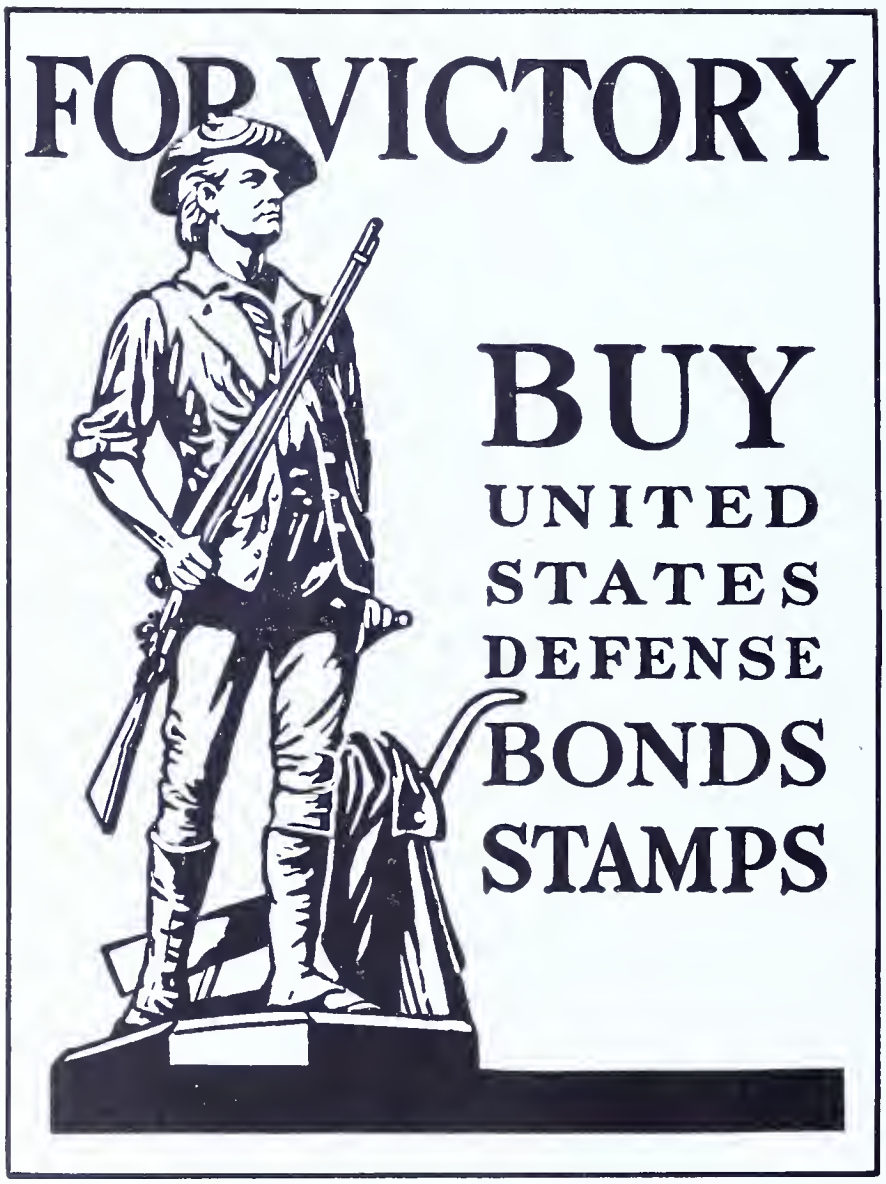
Field Trial Season is upon us with over a hundred A. K. C. recognized trials scheduled this fall in the Beagle breed alone. There is hardly a section of Pennsylvania where there isn't a Beagle Club conducting from two to five trials each year. There is no question but what this breed has steadily improved in the past ten years due largely to the Field Trial activities and Field Trial men endeavoring to breed more nose, brains and stamina into their merry little hounds. At the same time the general appearance of the dogs at the trials are noticeably coming closer to the Beagle Show standard.

The success of Beagle Field Trials has opened a new avenue of sport for thousands of Pennsylvania sportsmen who can now enjoy their dogs twelve months out of the year. In addition it has made these same sportsmen more conservation minded with the result that Beaglers as individuals and Beagle Clubs have stocked more rabbits than any other single class of sportsmen. Many of these hunters, who formerly took their limit each year as a matter of pride, are cutting their take down to one half the legal limit and are following feeding programs religiously during the winter months.

We are including in our column this month the Standard Procedure or Running Rules for Beagle Field Trials as approved by the Beagle Advisory Board at its meeting April 2, 1940 and by the Board of Directors of the American Kennel Club May 14, 1940 for the permanent use of Beagle Clubs. If you will write to the American Kennel Club, 221 Fourth Ave., New York City, N. Y. they will gladly inform you where the trial nearest you will be held and we know you will have a great day afield.

# THE FAMILY OF A. HUNTER, ESQUIRE—EPISODA NO. 20




FOR VICTORY
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# PENNSYLVANIA GAME NEWS

NOVEMBER 1942

TEN CENTS

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# PENNSYLVANIA GAME NEWS

PUBLISHED MONTHLY BY THE PENNSYLVANIA GAME COMMISSION, HARRISBURG, PENNSYLVANIA

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VOL. XIII, NO. 8

# EDITORIAL

NOVEMBER, 1942

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## AN OPPORTUNITY FOR SERVICE

This fall thousands of sportsmen, not only in Pennsylvania but throughout the Nation, will have an opportunity to help the war effort along by salvaging all the old rubber, tin, lead, iron, steel or other useful scrap materials that they find in the fields or around their hunting camps.

In the aggregate there are perhaps thousands of tons of such scrap, particularly around camps, which could be very easily loaded up, brought out, and turned over to a collection center or junk dealer. Never again may such a favorable opportunity to help in the defense program present itself, and at no time in the history of the Nation has there been such a dire need for scrap materials of all kinds. Do your bit! Do not overlook a single piece, even if it does crowd your car to bring it along back.

If on the average one person managed to bring back one pound of some kind of scrap it would mean, based on our usual 600,000 licensed hunters, the collection of over 300 tons from Pennsylvania's fields and woodlands alone. And when you think that same average in terms of the millions of hunters throughout the country you can readily see what a major contribution such a cooperative effort would amount to.

## ACCIDENTS CRIPPLE MANPOWER

In the last several issues of this publication we have exerted every possible effort to make Pennsylvania's hunters more safety conscious. We have preached safety until it hurts. In the past we did it for the sake of the individual, realizing what the untimely death of a father, husband, brother or other loved one would mean to the future of a family.

Today an individual is more valuable than at any time in the Nation's history; every man or woman is needed to preserve for our children and our children's children the right to live as free people in a free nation. In preserving this rich heritage many lives will be sacrificed in battle, but there is absolutely no need for any of them to be sacrificed through carelessness on the home front, either at work or at play. Today every man killed or injured through carelessness—either through his own or someone else's—whether in shop, mine, mill, or while hunting, is a grave loss to the Nation.

Today manpower is needed at home to keep the mills full of grist—planes, tanks, food, a hundred and one things constantly flowing to our armed forces. Every man and woman is needed, everyone must play a vital part, however little. Let us remember this when we go afield this season. Everyone counts, so let us make every moment a safe one no matter where you are or what you are doing. Hunt Safely—Return Safely.

## BUY WAR BONDS AND STAMPS

By Dr. Chas. S. Apg

**The Night Before**

# A Summary of Accomplishments Made During the Past Two Years

*By Seth Gordon*

MAY 31, 1942 marked the close of another biennium in the history of the Pennsylvania Game Commission—a progressive two-year period marked by numerous outstanding events—all part of a long-range program of wildlife management established some years ago.

A detailed printed account of the accomplishments during that period will not be available for some time, but I have read carefully the reports submitted by the several administrative divisions of the department, and from them have picked out most of the highlights, things I felt the sportsmen should know about in advance, and which have been brevitized in the following paragraphs:

### Lands Acquired

The Commission's land purchase program passed the 700,000-acre mark at the close of the biennium—all having been acquired during the 22 years since the land purchase program was started. This figure includes over 67,000 acres acquired in 48 counties during the biennium. Land contracts totaling almost 38,000 acres were under contract for purchase at the close of the two-year period.

At the present time State game lands comprise 174 unit blocks located in 61 of the State's 67 counties. These lands constitute a valuable asset not only to sportsmen but to the general public. They not only provide hunting and fishing but are a growing source of continuous revenue for the Game Fund from the sale of timber and other forest products. Even though in the main only low priced, cut-over lands were purchased, almost $40,000 was realized from the sale of timber and wood during the biennium.

The low average price of $3.86 per acre is evidence that the Commission is cautiously selective in its acceptance of offers. Only those for the right type of land in the right locality, at reasonable prices, and without reservations of any kind, or only those which would interfere least with the use of the land for wildlife purposes, are accepted.

Over $64,000 was paid to County Treasurers and for schools and roads in lieu of taxes at the rate of one cent per acre for County purposes and two cents per acre each for road and school purposes.

Over $137,000 in Federal Aid in Wildlife Restoration funds have been applied to the purchase of lands during the past three years. This represents 44,400 acres.

### Cooperative Farm-Game Program

After six years of operation this program, which was planned to develop a better understanding between farmer and sportsman, and to improve farm-game hunting in the more intensively cultivated and thickly populated counties of the State, has proved beyond doubt that its objectives are being attained to an encouraging extent. While there were fewer projects in operation at the close of the biennium (76) the acreage on the other hand was increased by over 10,000. As of the close of the 1939-40 biennium, there were 83 projects comprising over 135,000 acres, whereas at the end of the present biennium there were 76 projects comprising over 146,000 acres.

It is interesting to note that during the 1940 hunting season an estimated total of 48,376 hunters took 84,110 pieces of game off the project areas, and an estimated 45,062 hunters secured 85,433 pieces in 1941. The average piece of game per man, per acre, of project areas open to public hunting during the two-year period was slightly over one. During the biennium 31,714 pieces of game were stocked on the projects by the Commission. The Commission also paid cooperating farmers and their families between $2500 and $3000 each year for raising ringnecks.

### Game Propagation Areas

The game propagation areas were increased by 20 projects totaling over 1900 acres, bringing the total of these projects, whereon wildlife may live and breed unmolested under natural conditions, to 95, comprising over 28,000 acres at the end of the biennium.

### Special Wildlife Refuges

The special wildlife refuge program, which is comparable in operation to the farm-game refuge program except that it is sponsored by sportsmen's organizations, was increased tremendously over the previous biennium. Both sportsmen and landowners approved the setup, and as a result of their joint efforts 114 projects containing over 41,000 acres were in operation at the close of the

*(Continued on page 22)*

"Hold it!" yelled Jim—"I forgot Tucker's old cow was in there."

# "Safe Jim"

## A Tale For Hunters

By L. M. Thompson, M. D.

IT was still dark when we drove out of town. The only light was on the doctor's porch. He has kept one there ever since old Lafe Judson fell off that porch and broke his leg one rainy night, when he came to get some medicine for Aunt Lavinia's "heartburn." Days are pretty short in November, and we had to start early to get out to Old Jim's farm in the barrens, where we were to hold our annual rabbit hunt.

The back of the car was a delightful confusion of guns, sweaters, blankets, and beagle dogs. We got out into the brush country and onto sandy roads while it was still dark but the eastern sky was showing gray with a hint of rose as we drove in through the gate. A square of yellow lamplight showed us that Old Jim was up and about, and as we got out and felt the soft ground under foot and caught the smell of wood smoke that means coffee and a farm breakfast we wondered why we didn't come out to Old Jim's for week-ends at other times of the year.

"Hi, there!" called the old man from the door. "Git in the house. There's a family o' skunks out under the barn, and they're probably prowlin' around the woodshed. Spoil the dogs' fun and yours, too, if they met up. Come in—come in!"

And there was little old Aunt Nancy with the tight gray ringlets and finger curls, just as we had always known her, busy at the stove as usual. Looking back to the days when my father first took us as small boys out to Jim's, my memory never puts Aunt Nancy anywhere but in the kitchen, which was also the dining room and living room of their little house. There was "the room" across the hall, but it was dark and had that shut up smell that small boys cannot stand. Even now, with the years of boyhood far behind, I had no desire to go beyond the kitchen, even on the chance of discovering a curly maple table. I know Old Jim wouldn't sell it to me anyway and I couldn't accept it as a gift, even if he did think my father was the finest man who ever set foot in his house.

"Old Jim" was what we had always called him, but I knew the local people spoke of him, when he wasn't present as, "Safe" Jim. Whether he ever knew of this we were never sure. But we had long ago learned why they called him "Safe" Jim.

Aunt Nancy's sausage and fried eggs made you want to linger at the table, but the light was getting stronger outside—the balance between lamplight and daylight was nearly equal—that queer light when you can't tell whether the light is going in or out of the window. The old folks say queer things can happen when the light balances. I know it is the hardest time of day to drive a car—you can look right at things and not see them.

We were getting out the guns and putting them together when Old Jim came along with his can of light machine oil.

"All oiled up, be ye? I reckon ye been gettin' them guns out and lookin' at 'em for a week, jist like kids. Hey! What you got there? Oh—it's one o' the new over and under guns. I thought first it was a pumper. Never did like them machine guns for shootin' game. I'm never quite sure they hain't a extry shell hid someplace in their innerds, liable to go off at me when the durn thing isn't loaded."

We knew Old Jim's caution around firearms. As a boy, he had watched a chum bleed to death after being shot by an "unloaded" gun. Had to stand there and watch while the men tried ineffectually to stop that red flood. And it was Old Jim who had given us our first lessons in anatomy and first aid. As boys, he had made it so simple and plain to us:

"Know the places where the arteries run over a bone," he told us, "and push your finger in against that bone and shut off the blood just like pinching a rubber tube to stop the water." and he had made us find these spots—feel the pulse beating there—and practice pressure until the pulse was shut off.

By the time we were ready Old Jim had fed his stock, brought Aunt Nancy another armful of wood and two buckets of water, and had his old gun down from the hooks over the mantle. He "broke it" from force of habit, held it up to squint through the barrels, and snapped it shut again without loading. He always kept it well oiled and it had never had a day's shooting without being cleaned before bedtime, no matter how tired the old man might be.

I had asked him once if he wouldn't like one of my father's guns, but he said: "Course I'd like it because it your dad's, but I wouldn't use it. When ye got a gun that suits ye, better stick to it and not keep changin' all the while. Me and this old gun has kind of worn in till we fit onenuther. Only thing I'm skeered is they'll keep making these new powders stronger till they split the old pipes. Then I guess I'll have to stop shootin', cause I'm too old to wear in another gun."

As the sun shown through the tree trunks in the woodlot down the hill, we were ready to start out. The dogs had been getting more and more excited as the daylight grew, and when we turned them loose they were off with short yelps of eagerness that just wouldn't let them behave as well trained dogs should. "Let 'em have their playspell," said Old Jim. "Jest like young ones, they'll settle down to work all the better if ye don't nag at them to a bad start."

Off we went through Jim's corn patch, cut and shocked and ready for husking, and over to one of the few old rail fences still in

***We are indeed happy in receiving this contribution from the Asst. National Director of First Aid, American Red Cross.***

use in our part of the country. One of us started to load his gun.

"Better wait till ye get over the fence," said Old Jim. "I saw a feller once who climbed through a fence and pulled his gun after him, muzzle foremost. He never hunted anymore. Always take your shells out, or at least put your safety catch on, before you cross a fence."

Just over the fence old Bugler began to work. A short yelp from him brought the other dogs to his side of the field and suddenly Bugler let go his famous hunting song, and through the weeds ahead we caught sight of a bobbing cotton tail. As a gun came up, Jim said: "Steady! Hold up—can't see where the dogs are. Wait till they bring him around." So we spread out and followed the rabbit's run by the sound of the dogs, working steadily and not too fast, and soon we saw the rabbit slipping back along the brush at the fence on the left. A gun cracked sharply in the morning air and the rabbit toppled over.

We worked on over a low ridge, starting another rabbit, but he went down a hole. We pulled out little Fanny, who had her own ideas about rabbits in holes, and before long we heard the bay of a big hound not far to one side.

"Hi, yi!" shouted Old Jim. "Better let them fellers know where we are. They might not see us, and give us a dusting if their rabbit came out between us and them."

On down the slope and into the edge of the swamp we worked. "Watch out where ye step, boys," Old Jim warned us. "Snakes been kind of plenty this year, and it's so dry they're all down here near the water. Following the frogs, most likely, since the young birds got old enough to fly." Suddenly he stopped abruptly and backed a step. An angry dry buzzing sounded from the trail in front of him, and he called us over to see the big rattlesnake, looped in fighting position, ready to strike.

"Didn't hardly expect to find one till it warmed up a little more. No, he don't have to be coiled to strike. In fact, he probably won't strike from a coil, without getting unlimbered and at a full cock first. But don't fool yourself—he can get ready so fast that you may not have time to back up. Stop dead when you see one, and then move slowly back. He won't take after you."

**An angry dry buzzing sounded from the trail in front of him.**

"Aren't you going to kill it?" we asked.

"Well, I usually do. And then sometimes I don't. Seems like those fellers kind of got a right to live out here in the barrens where nobody else wants to live. If we killed them all off, hunting wouldn't be quite so interesting. Sort of evens things up when there is something liable to kill you if you don't watch out." But he got a good stout stick and fixed that snake so it wouldn't strike any more. "He was a little too close to home," was Jim's justification for killing it. "No, I don't like 'em either, but I sort of like to watch their ways."

Later, as we crossed a wet spot on an old log, one of the boys used his gun to steady himself on the slippery log. Old Jim watched him. When he had crossed he said: "Better look and see if you got any mud in that gun barrel. Mud or snow in a gun barrel will bust a barrel quicker than scat if you fire with the muzzle plugged. And don't ever try to shoot anything in the water with the muzzle under water. That will blow a barrel, too. And another thing—never take a loaded gun into a boat or car. Even in a duck boat, don't load until you are in position and ready to shoot, and then when you get ready to pull up and leave, unload first."

Back in the brush lots we started another rabbit. As the dogs brought it back toward us after a long looping run, we were all on the alert for a shot. Something moved in the brush ahead, and the guns went up to get ready. "Hold it!" yelled Jim "Gosh—I forgot Tucker's old cow was in here. She strayed away yesterday and he asked me to watch out for her." And the old brindle moved off through the brush with a whole hide because of Old Jim's lifelong habits of safety. "Never shoot at something you aren't sure about! It might have been a man. And never point a gun at anything unless you are willing to kill it."

It became apparent to the new members of the party that there was more to this trip than just hunting rabbits. We got rabbits, but we got a lot more. Exercise, wood lore, and the finest lesson in safety, because it came from an old timer who had proved his theories with a lifetime of careful testing.

As we got back to the house, with heavy bulging hunting coats and weary shoulders but light hearts, Old Jim stopped at the gate. "We always unload here. Never take a loaded gun in the house. Too many chances somebody will pick it up and find out it is loaded. Well, we had a good day, and a lot of fun and nobody got hurt. Comin' out again next week? Sure I'd like to have you. Got some more good places we didn't work today."

We said goodbye to Aunt Nancy, patted old Bugler and praised him for his work in leading our dogs, and loaded up the cars. The last we heard was old Safe Jim's final admonition: "Take it easy! Good luck and come again!

*—Courtesy of the Red Cross Courier*

# Pennsylvania's Licensed Hunters

Pennsylvania hunting licenses are issued through the State Department of Revenue.

*By Allan T. Studholme and A. C. De Ferie*

**An analysis of hunting licenses made along the lines of the Gallup Poll.**

### Introduction

THE current emergency renders knowledge of the age, employment classification and related facts pertaining to the State's licensed hunters of particular significance. For example, in attempting to foretell the trend of license sales during the remainder of the war period, it is essential that the percentage of the permit purchasers falling outside of, as well as within, the draft age limits be known. Likewise the employment status of the older men is also of value. Then too, such information makes possible definite answers regarding the recorded hunting accidents and is otherwise useful for administrative purposes.

In view of the facts above mentioned, an analysis of the 1940 hunting license holders was made during late 1941 and early 1942 along the lines of the Gallup poll. A summary of the results obtained from the work is presented herewith.

### Methods

Pennsylvania hunting licenses are issued through the State Department of Revenue. There are but two types of licenses, resident and non-resident. The former, issued only to bonafide residents of the Commonwealth, cost two dollars ($2.00), the latter, required by those from other states, are sold for fifteen dollars ($15.00). Both types are valid for use throughout the entire State for both small and large game.

The Miscellaneous License Division of the Department of Revenue appoints bonded license issuing agents throughout the sixty-seven counties of the Commonwealth. Included are all of the County Treasurers plus limited numbers of additional persons residing in key towns and cities. The total number of agents active in 1940 was approximately 775.

The license forms are made up as follows: For resident hunters pads containing 100 licenses in triplicate are used, while non-resident permits are printed in pads of twenty. The original form is given to the applicant, the duplicate is sent to the Department of Revenue for audit and the triplicate is kept by the issuing agent. At the close of the year all unsold licenses are returned to the Department of Revenue where final audit is made.

Each license stub shows the holder's name, address, occupation, age, hair and eye color, height, weight and race. It was upon this information that the study herein reported is based.

The time and cost involved made analysis of all the 676,134 issued in 1940 impossible. Thus, a random sample of 2.5% was arbitrarily decided upon. The method of sampling was as follows: The total number of licenses issued in each county was first divided into two major groups; namely, those sold by County Treasurers and those dispersed by other agents. These were further divided in each case into resident and non-resident classifications. Next, the figures representing 2.5% of each listing for each county were computed. That used for analysis was the nearest whole number above actual division. These ranged among the four groupings from a low of zero (agents in some counties have no calls for non-resident licenses) to 1156. The sample for the entire State totaled 17,205, which is actually 2.54% of the total issuance. Finally the number of license stubs so ascertained were drawn at random from the file drawers and the information contained thereon was summarized on specially prepared tally sheets.

### Results

A summary of the essential information gained from the survey is presented in Table 1. The information contained in the following sections of this report can be most readily comprehended by making frequent reference to this chart.

An analysis of the age data revealed several interesting facts. The average age of all hunters within the Commonwealth was found to be 33.89 years while the minimum was 12, which is the youngest age at which a person may legally secure a hunting permit. As shown in Table 1, a maximum age of 90 was found in Elk and Schuylkill Counties

TABLE 2 AGE AND OCCUPATIONAL DATA

| Age Data | | Employment Data | |
|---|---|---|---|
| Age Groups | Per Cent of Licenses | Occupation | Per Cent of Licenses |
| 12-15 | 2.15 | Unskilled Laborers | 46.77 |
| 16-19 | 11.27 | Skilled Laborers | 20.52 |
| 20-25 | 18.22 | Farmers | 9.41 |
| 26-30 | 13.96 | Students | 6.66 |
| 31-35 | 13.18 | Business | 5.90 |
| 36-40 | 10.75 | Clerical | 3.40 |
| 41-50 | 15.97 | Professional | 2.52 |
| 51-60 | 8.73 | Women | 1.07 |
| 61-70 | 4.29 | All Others | 3.75 |
| Over 70 | 1.04 | | |
| Not Given | 0.44 | | |

**TABLE 1**

| | | Age Data | | | Age Groups | | | | | | | | | | | Occupational Data | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OUNTIES | Licenses Analyzed | Max. | Min. | Average | 12 - 15 | 15 - 19 | 20 - 25 | 25 - 30 | 31 - 35 | 36 - 40 | 41 - 50 | 51 - 60 | 61 - 70 | Over 70 | Not Given | Unskilled | Skilled | Farmer | Student | Business | Clerical | Pr. F. | Female | All Other |
| dams, | 87 | 79 | 14 | 35.27 | 1 | 13 | 15 | 12 | 6 | 5 | 18 | 9 | 3 | 2 | 2 | 40 | 16 | 8 | 5 | 5 | 5 | 3 | 3 | 2 |
| legheny, | 1242 | 79 | 13 | 34.50 | 14 | 96 | 221 | 194 | 194 | 168 | 214 | 107 | 34 | 4 | 8 | 587 | 328 | 15 | 52 | 96 | 76 | 36 | 6 | 40 |
| rmstrong, | 254 | 75 | 15 | 34.00 | 5 | 33 | 57 | 29 | 29 | 28 | 32 | 29 | 8 | 3 | 1 | 125 | 49 | 16 | 25 | 9 | 5 | 3 | 5 | 17 |
| eaver, | 269 | 76 | 13 | 30.43 | 5 | 30 | 64 | 39 | 35 | 24 | 48 | 13 | 8 | 2 | - | 161 | 37 | 12 | 22 | 15 | 8 | 10 | 4 | 10 |
| edford, | 188 | 78 | 13 | 35.78 | 5 | 17 | 27 | 27 | 19 | 16 | 30 | 12 | 11 | 4 | - | 71 | 37 | 35 | 7 | 5 | 2 | 5 | 1 | 5 |
| erks, | 472 | 75 | 12 | 35.92 | 7 | 57 | 70 | 57 | 57 | 57 | 78 | 56 | 28 | 3 | 2 | 212 | 105 | 70 | 28 | 23 | 18 | 7 | 4 | 9 |
| air, | 334 | 84 | 13 | 35.94 | 10 | 33 | 54 | 44 | 37 | 43 | 57 | 28 | 21 | 6 | 1 | 155 | 68 | 34 | 30 | 15 | 6 | 8 | 6 | 23 |
| radford, | 176 | 75 | 14 | 31.71 | 4 | 35 | 36 | 30 | 15 | 8 | 25 | 13 | 6 | 3 | - | 53 | 9 | 74 | 15 | 8 | 7 | 5 | 2 | 2 |
| ucks, | 200 | 74 | 13 | 35.20 | 8 | 20 | 42 | 29 | 18 | 18 | 32 | 16 | 13 | 4 | 2 | 90 | 28 | 32 | 13 | 19 | 7 | 5 | 3 | 3 |
| utler, | 250 | 58 | 13 | 32.72 | 8 | 30 | 41 | 44 | 28 | 32 | 36 | 25 | 4 | - | 2 | 133 | 38 | 27 | 20 | 13 | 8 | 8 | 1 | 2 |
| ambria, | 480 | 77 | 14 | 32.73 | 7 | 58 | 97 | 84 | 68 | 44 | 73 | 38 | 9 | 4 | - | 204 | 167 | 26 | 23 | 18 | 13 | 7 | 4 | 18 |
| ameron, | 44 | 73 | 17 | 39.90 | - | 5 | 5 | 6 | 5 | 5 | 7 | 4 | 5 | 2 | - | 24 | 7 | 4 | 1 | 2 | 1 | - | 1 | 4 |
| arbon, | 141 | 73 | 14 | 34.69 | 4 | 20 | 22 | 14 | 18 | 14 | 27 | 15 | 5 | 1 | - | 69 | 13 | 3 | 9 | 7 | 3 | 5 | 1 | 11 |
| entre, | 265 | 72 | 12 | 32.19 | 11 | 45 | 51 | 32 | 17 | 23 | 35 | 21 | 15 | 2 | 1 | 109 | 17 | 24 | 69 | 13 | 11 | 12 | 4 | 4 |
| hester, | 294 | 79 | 13 | 34.98 | 13 | 18 | 48 | 44 | 41 | 47 | 45 | 20 | 9 | 5 | 4 | 126 | 78 | 27 | 21 | 18 | 10 | 7 | 2 | 7 |
| larion, | 187 | 75 | 13 | 34.50 | 4 | 29 | 34 | 22 | 18 | 25 | 24 | 17 | 12 | 2 | - | 102 | 35 | 15 | 12 | 9 | 5 | 3 | 1 | 5 |
| learfield, | 238 | 75 | 12 | 31.15 | 12 | 50 | 61 | 34 | 33 | 25 | 45 | 17 | 15 | 3 | 1 | 100 | 121 | 19 | 23 | 9 | 7 | 3 | 2 | 14 |
| linton, | 173 | 76 | 14 | 36.33 | 8 | 22 | 29 | 19 | 20 | 13 | 18 | 24 | 15 | 5 | - | 83 | 37 | 10 | 21 | 5 | - | 1 | 3 | 13 |
| olumbia, | 158 | 79 | 14 | 36.84 | 1 | 7 | 34 | 25 | 21 | 18 | 18 | 15 | 13 | 3 | 1 | 99 | 23 | 8 | 3 | 5 | 4 | 5 | 2 | 9 |
| rawford, | 274 | 78 | 12 | 35.16 | 7 | 31 | 48 | 33 | 32 | 26 | 54 | 27 | 11 | 4 | 1 | 98 | 39 | 58 | 21 | 27 | 11 | 9 | 5 | 6 |
| umberland, | 195 | 79 | 14 | 35.33 | 4 | 25 | 33 | 19 | 25 | 19 | 35 | 20 | 13 | 2 | - | 113 | 29 | 14 | 8 | 15 | 5 | 7 | 1 | 2 |
| auphin, | 363 | 79 | 12 | 33.57 | 7 | 49 | 57 | 55 | 52 | 28 | 58 | 30 | 13 | 4 | - | 239 | 31 | 21 | 27 | 15 | 7 | 7 | 2 | 14 |
| elaware, | 231 | 71 | 14 | 37.34 | 2 | 10 | 33 | 29 | 38 | 33 | 49 | 23 | 13 | 1 | - | 83 | 83 | 3 | 8 | 29 | 7 | 10 | 4 | 4 |
| lk, | 157 | 90 | 12 | 35.06 | 6 | 20 | 32 | 18 | 15 | 14 | 28 | 11 | 13 | 2 | - | 85 | 48 | 3 | 15 | 8 | 4 | 5 | 1 | 5 |
| rie, | 408 | 74 | 12 | 34.48 | 6 | 43 | 73 | 49 | 59 | 55 | 82 | 35 | 18 | 1 | 7 | 194 | 79 | 31 | 30 | 33 | 15 | 9 | 8 | 9 |
| ayette, | 372 | 78 | 16 | 33.29 | 1 | 41 | 78 | 68 | 45 | 36 | 57 | 24 | 16 | 4 | 2 | 128 | 145 | 24 | 14 | 11 | 5 | 12 | 7 | 26 |
| orest, | 38 | 81 | 15 | 39.08 | 1 | 3 | 6 | 1 | 5 | 4 | 8 | 4 | 2 | 2 | - | 8 | 13 | 2 | 2 | 4 | - | 1 | 3 | 3 |
| ranklin, | 187 | 74 | 14 | 35.32 | 1 | 17 | 31 | 38 | 23 | 18 | 25 | 23 | 8 | 2 | - | 80 | 33 | 25 | 9 | 12 | 9 | 10 | 2 | 7 |
| ulton, | 49 | 66 | 15 | 31.12 | - | 9 | 14 | 4 | 8 | 4 | 4 | 5 | 1 | - | - | 32 | 4 | 8 | 1 | 1 | 2 | - | 1 | - |
| reene, | 87 | 71 | 12 | 35.83 | 3 | 7 | 17 | 7 | 10 | 10 | 22 | 2 | 8 | 1 | - | 42 | 20 | 10 | 7 | 3 | 2 | 1 | - | 2 |
| untingdon | 156 | 55 | 13 | 32.65 | 3 | 19 | 27 | 20 | 23 | 14 | 28 | 13 | 5 | - | 3 | 64 | 34 | 13 | 15 | 4 | 9 | 5 | 4 | 7 |
| ndiana, | 260 | 75 | 14 | 31.10 | - | 12 | 37 | 51 | 54 | 29 | 18 | 31 | 13 | 5 | - | 75 | 115 | 15 | 21 | 10 | 6 | 3 | 4 | 9 |
| efferson, | 258 | 72 | 12 | 34.27 | 3 | 44 | 46 | 22 | 34 | 28 | 41 | 27 | 14 | 1 | - | 115 | 58 | 18 | 23 | 15 | 7 | 12 | 2 | 7 |
| uniata, | 55 | 56 | 15 | 31.07 | 3 | 7 | 12 | 6 | 7 | 9 | 4 | 4 | 1 | - | 2 | 28 | 5 | 9 | 5 | 1 | 3 | - | 1 | 2 |
| ackawanna | 327 | 72 | 13 | 33.97 | 8 | 28 | 59 | 43 | 55 | 35 | 55 | 24 | 10 | 1 | - | 183 | 50 | 6 | 20 | 22 | 11 | 12 | 2 | 21 |
| ancaster, | 550 | 84 | 13 | 36.08 | 7 | 44 | 90 | 84 | 85 | 55 | 97 | 44 | 24 | 9 | 1 | 258 | 135 | 37 | 18 | 49 | 15 | 11 | 4 | 13 |
| awrence, | 255 | 74 | 14 | 33.15 | 5 | 32 | 39 | 40 | 27 | 25 | 38 | 18 | 6 | 1 | 5 | 113 | 51 | 18 | 18 | 7 | 8 | 8 | 1 | 13 |
| ebanon, | 206 | 78 | 13 | 36.70 | 3 | 27 | 35 | 22 | 19 | 18 | 39 | 20 | 19 | 3 | 1 | 83 | 37 | 44 | 7 | 13 | 5 | 9 | 1 | 7 |
| ehigh, | 250 | 71 | 13 | 34.34 | 8 | 27 | 47 | 35 | 29 | 36 | 35 | 25 | 8 | 2 | - | 109 | 57 | 18 | 10 | 22 | 15 | 8 | 2 | 9 |
| uzerne, | 550 | 75 | 12 | 32.27 | 7 | 56 | 142 | 96 | 109 | 85 | 97 | 28 | 14 | 3 | 5 | 351 | 153 | 10 | 30 | 28 | 11 | 10 | 4 | 43 |
| ycoming, | 309 | 82 | 13 | 37.28 | 12 | 25 | 53 | 33 | 40 | 38 | 45 | 34 | 25 | 5 | - | 151 | 23 | 47 | 15 | 28 | 15 | 7 | 7 | 6 |
| cKean, | 257 | 70 | 12 | 34.00 | 12 | 23 | 38 | 35 | 40 | 28 | 46 | 20 | 11 | - | 1 | 151 | 31 | 19 | 21 | 13 | 9 | 4 | 5 | 3 |
| ercer, | 255 | 79 | 13 | 35.05 | 5 | 20 | 40 | 42 | 46 | 40 | 50 | 30 | 9 | 2 | 1 | 154 | 57 | 10 | 11 | 10 | 10 | 7 | - | 28 |
| ifflin, | 149 | 68 | 15 | 33.54 | 5 | 23 | 29 | 19 | 19 | 11 | 21 | 13 | 9 | - | - | 62 | 24 | 25 | 13 | 8 | 8 | 4 | 1 | 4 |
| onroe, | 99 | 79 | 12 | 33.43 | 4 | 11 | 22 | 13 | 14 | 9 | 14 | 7 | 3 | 2 | - | 54 | 20 | - | 12 | 7 | 2 | 1 | - | 3 |
| ontgomery, | 484 | 80 | 14 | 36.02 | 8 | 58 | 78 | 59 | 54 | 43 | 94 | 53 | 24 | 7 | 3 | 202 | 110 | 43 | 31 | 43 | 18 | 22 | 4 | 11 |
| ontour, | 41 | 70 | 13 | 34.05 | 1 | 2 | 5 | 9 | 11 | 4 | 1 | 5 | 3 | - | - | 23 | 5 | - | 2 | 3 | 4 | 3 | 1 | - |
| orthampton, | 352 | 76 | 14 | 31.33 | 5 | 51 | 93 | 47 | 48 | 29 | 54 | 25 | 7 | 2 | 1 | 218 | 64 | 23 | 20 | 14 | 7 | 4 | 3 | 11 |
| orthumberland, | 295 | 78 | 13 | 35.06 | 5 | 25 | 65 | 37 | 32 | 29 | 58 | 23 | 12 | 4 | - | 159 | 55 | 34 | 12 | 15 | 7 | 8 | 1 | 4 |
| erry, | 80 | 72 | 15 | 32.56 | 1 | 14 | 15 | 9 | 14 | 7 | 12 | 4 | 3 | 1 | - | 30 | 7 | 29 | 5 | 3 | 3 | 1 | - | 2 |
| hiladelphia, | 433 | 79 | 13 | 35.66 | 3 | 31 | 77 | 65 | 72 | 53 | 73 | 37 | 17 | 4 | - | 155 | 150 | 2 | 15 | 39 | 20 | 14 | 7 | 21 |
| ike, | 62 | 60 | 20 | 40.61 | - | - | 8 | 6 | 8 | 12 | 15 | 8 | 4 | 2 | - | 24 | 8 | 7 | - | 10 | 4 | 3 | 3 | 3 |
| otter, | 114 | 79 | 14 | 37.78 | 4 | 15 | 15 | 9 | 10 | 18 | 21 | 11 | 5 | 4 | - | 58 | 9 | 20 | 10 | 8 | 3 | 2 | 1 | 3 |
| chuylkill, | 390 | 90 | 12 | 34.75 | 13 | 42 | 58 | 59 | 52 | 41 | 57 | 33 | 20 | 2 | 3 | 195 | 75 | 19 | 22 | 25 | 18 | 7 | 5 | 17 |
| nyder, | 66 | 66 | 16 | 35.54 | - | 7 | 10 | 14 | 8 | 2 | 11 | 9 | 5 | - | - | 40 | 4 | 14 | 1 | 4 | 2 | 1 | - | - |
| omerset, | 269 | 76 | 12 | 31.06 | 6 | 38 | 50 | 46 | 41 | 14 | 35 | 21 | 5 | 1 | - | 101 | 34 | 15 | 22 | 13 | 6 | 5 | 2 | 10 |
| ullivan, | 31 | 57 | 14 | 35.18 | 1 | 5 | 8 | 2 | 5 | 1 | 3 | 2 | 2 | 2 | - | 15 | 5 | 4 | 4 | 1 | - | - | - | 2 |
| usquehanna, | 426 | 75 | 13 | 34.22 | 13 | 65 | 70 | 55 | 49 | 38 | 70 | 40 | 20 | 5 | 2 | 125 | 39 | 168 | 36 | 19 | 15 | 11 | 2 | 9 |
| ioga, | 169 | 78 | 12 | 32.73 | 10 | 19 | 32 | 23 | 18 | 20 | 30 | 8 | 4 | 5 | - | 58 | 10 | 47 | 19 | 13 | 6 | 5 | 5 | 6 |
| nion, | 79 | 77 | 14 | 35.65 | 4 | 12 | 15 | 2 | 5 | 9 | 14 | 12 | 3 | 1 | 1 | 29 | 15 | 13 | 5 | 8 | 1 | 1 | - | 5 |
| enango, | 250 | 81 | 13 | 35.90 | 10 | 28 | 32 | 21 | 27 | 29 | 41 | 27 | 11 | 3 | 1 | 91 | 43 | 21 | 22 | 15 | 9 | 11 | 7 | 11 |
| arren, | 162 | 82 | 12 | 36.83 | 7 | 18 | 16 | 17 | 18 | 18 | 30 | 23 | 10 | 2 | 3 | 76 | 25 | 7 | 17 | 18 | 7 | 5 | 1 | 6 |
| ashington, | 414 | 80 | 13 | 33.75 | 5 | 44 | 76 | 74 | 53 | 49 | 67 | 32 | 8 | 5 | 1 | 230 | 70 | 18 | 25 | 23 | 5 | 9 | 2 | 32 |
| ayne, | 105 | 80 | 13 | 34.94 | 1 | 17 | 15 | 14 | 13 | 10 | 18 | 10 | 4 | 1 | 3 | 36 | 12 | 32 | 10 | 5 | 3 | 2 | 1 | 1 |
| estmoreland, | 665 | 79 | 12 | 33.94 | 20 | 95 | 119 | 78 | 85 | 69 | 101 | 54 | 34 | 8 | 1 | 301 | 95 | 99 | 61 | 26 | 24 | 12 | 11 | 27 |
| yoming, | 57 | 75 | 14 | 37.66 | 3 | 9 | 5 | 5 | 7 | 7 | 5 | 11 | 1 | 4 | - | 24 | 5 | 14 | 7 | 3 | 1 | 1 | - | 2 |
| ork, | 377 | 85 | 14 | 30.27 | 4 | 57 | 87 | 62 | 46 | 33 | 43 | 27 | 12 | 1 | 2 | 222 | 44 | 21 | 19 | 15 | 23 | 4 | 1 | 4 |
| otal, | 17205 | | | | 370 | 1039 | 3134 | 2402 | 2268 | 1850 | 2793 | 1502 | 733 | 179 | 75 | 7946 | 3530 | 1619 | 1145 | 1015 | 536 | 475 | 184 | 546 |
| VG. & PER CENT | | | | 33.89 | 2.15% | 11.27% | 18.22% | 13.96% | 13.18% | 10.75% | 15.97% | 8.73% | 4.26% | 1.04% | .44% | 46.77% | 20.52% | 9.41% | 6.68% | 5.90% | 3.40% | 2.52% | 1.07% | 3.7[illegible] |

while 61 of the 67 counties were found to have hunters 70 or more years old.

An interesting correlation between the ages of the licensees within the counties and the land utilization or degree of industrialization seemed to exist. Counties such as Forest, Cameron and Pike which have a large percentage of non-industrial forested land exhibited, in most cases, higher average ages among the hunters than did the more industrial or agricultural areas.

The study showed that the percentage of persons under 16 years of age possessing hunting licenses was much less than is commonly believed; only 2.15 percent of the hunters fell within this group. Of the total number of licenses examined 13.42 percent were for persons under 20. As indicated in Table 2, the age group having the greatest number of hunters was the 20-25 year class which constituted 18.22 percent and the next highest, the 41-50 year old group, contained 15.97 percent. Only 5 percent were found to be over 60. By combining those under 20 and over 60, which is an approximation of the draft age limits for military service, it was found that the aggregate percentage within this class was 18.75. The total of all hunters between the ages of 20 and 60 inclusive was 80.81 percent.

In order to have an accurate, modern, systematic method of classifying the occupations of the licensees the recent occupational questionnaire distributed by the military authorities was used with certain minor changes. The occupational breakdown and percentages of hunters within each group used during the study are shown in Table 2 under the heading of Employment Data. Unskilled laborers constituted 46.77 percent of the licensees while skilled laborers were found to comprise 20.52 percent. The high percent of farmers clearly showed that they purchased hunting licenses in as great a proportion as others did. The small number of women accounted was rather surprising; they made up only 1.07 percent of the hunters. An aggregate of a little over 32 percent of the permits examined were obtained by skilled workers, businessmen, clerks, and professional men.

Note: The number of licenses analyzed for Susquehanna County should have been 36, not 361 as shown in the accompanying table.

# The Crippled Deer of Mosey Wood

The glory of the wild was in his large bright eyes as he stood framed in a gateway of laurels.

HERE was a land of utter contentment. Jeth Farmer gazed wonderingly at it from a rock promontory that stood as a lord in the warm clear sky, apart from the forest. For miles on every side rolled the densely-wooded Pocono plateau, soft green and silvered with birches, drowsy now with languid sunshine, rolling away into a horizon puffed with cotton-clouds; a land whose dim and lonely trails were avenues to Jeth, whose occasional giant white oaks or pines were skyscrapers, whose wildlife and birds were neighbors, whose dreamy lakes and tumbling rivers were magnificent and primitive amusement parks. To the south, appearing as light ink-splotches on a Master canvas, slept Lake Harmony, while northward a tiny blue finger laced with silver birches marked Mosey Wood Lake. Straight ahead was Pimple Hill, round and bare-looking in the light blue distance.

Whatever salient thing halted Jeth's roving eyes, that thing smacked of familiarity, and some incident arose with the picture of it, ready to warm his heart and bring a happy light to his eyes. And yet, as Jeth gazed, a sadness crept into his features; the long mouth drooped a little, and the eyes became wistful. For with all this—silence and peace and the fragrant tang of pines—a heaviness hung over Jeth Farmer.

There was an unseen, fanciful battle being waged, off in the flotillas of cloud, deep in the heart of the forest. Machine guns rattled and big guns cannonaded. Shells whistled and burst. Forest green was drenched in blood; dead and wounded spangled the mountain-sides where soft-faced wild-flowers grew.

"You leaving the woods?" Old Grat had said, opening his eyes half-way. "Go on!"

"I am," he had reaffirmed. "And in a couple of days, too."

"Don't tell me you're gonna be one of them guys who smells of talcum powder and whose face twitches and eyes blink and he runs back and forth among honking horns and bell-clanging street cars like a blasted fool whose working hisself into a grave as if he looked forward to it—" Old Grat had been steamed up; strange but true it was, he could waken up on occasion.

He had laughed. "I'm going into the army, Grat," he had said.

"Army!" Old Grat had expostulated. Then he had calmed down. "Blame my bones if I don't forget there's people mad at each other. Only way I tell is there ain't so many fool hunters coming up here to shoot each other and so many fishermen to say there ain't no trout."

Yes, it was the army for him. He had decided. He had greased up and stowed away the shotgun; he had put away the traps and the hunting clothes; he was ready to turn over his dog Weary to Old Grat for safe keeping. All of this world of peace and quiet was to be gone for a spell, and how long this spell was to be no mortal knew.

At last Jeth Farmer bounded down from rock to rock until he had reached the rich soft earth beneath the trees again. He walked leisurely down a shaded path, heading for his cabin on the shore of Mosey Wood Lake. After a walk of perhaps a hundred yards, the snap of brush turned his attention into the forest. And then a wide grin broke over his face.

"Old Cripple!" he cried. "Say! You make it hard for me to leave, popping up like this!"

Old Cripple was a huge, wide-antlered buck deer. He was familiar to all natives in this section of the Pocono mountains, both because of his magnificent proportions and because of the malformation of his front foot, which caused him to walk with a slight limp. The glory of the wild was in his large bright eyes as he stood framed in a gate-way of laurels, his head raised, neck extended, and his body motionless. He might have been a statue.

All of a sudden, it became difficult for Jeth Farmer to leave. Leave all this?—Not to hear the rush of the wind in the pines? Not to feel the bite of mountain frost at early dawn? To forsake the silence and solitude?

"Old Cripple, what am I really leaving for?" asked Jeth Farmer of the motionless buck.

Old Cripple did not move a muscle.

"I'm only a mountaineer, with moss in my hair and powder smoke in my teeth and sawdust in my pants. What am I going over there to fight for?" In a questioning tone, he repeated, "What is it I want to go to fight for?"

But Old Cripple only stood. Then, with a flash of white tail and the crash of brush, he was gone. Jeth Farmer went on down the trail.

Jeth Farmer had been born here in the Poconos, along the Pinchot Trail. All of his years had been spent in the silent places; all of his years, and save for flickers of time spent at shopping, all of his moments. Every mountaineer knew his familiar broad frame with the large well-shaped head and mop of auburn curls; and the huntsman knew, from distant sight, when he saw the slight limp caused by an incident of years gone by and saw a large German Shepherd dog trailing at his heels.

"How'd he get that limp?" Old Grat had said once at a hunter-boarder's query. "Well if I telled you wouldn't believe it! You know Jeth looks like any boy. Boys just ain't got much sense—take it from me, I know—but Jeth he's different, and I know what I'm talking about."

The hunter probed Old Grat a bit more, and out came, "He was a deputy warden here for years. Active, too, he was, always alert and on the job. Well a couple of years ago he was in the mountains on opening day of deer hunting, all alone. He heard a couple shots and stood a while along a big oak tree. For a while after the shots he heard wild shouts back and forth and then saw a deer—a dandy big buck—bounding far out ahead of him. Shots began to open up everywhere; all rifle shots; crack! crack! It was like a war. The deer kept on going. Then all of a sudden: bang! One shot. It was a shotgun, firing punkin balls. After this shot, there was a lot of yelling and howling, and after a while Jeth heard a boy, and he was crying and saying, "I shot him! I shot him!"

"Well, Jeth runs off through the brush, all het up with curiosity. And he comes on a couple of men bent over a deer and gutting it and a boy standing by, a lad of seventeen or so, trying to fight with a pair of big burly men dressed in expensive hunting outfits. Newspapers call these guys 'sportsmen' and I call them something too, but we won't go into that. The boy was crying and yelling 'I shot that deer!' and one of the men said 'Shut up damn you or we'll gut you instead of the deer!'"

"At sight of Jeth, the men looked at each other but said nothing. Jeth showed his badge, then asked which one had a shotgun with punkin balls. The only one with a shotgun was the boy. Right then, Jeth knew that the boy *had* shot the deer, and the men were stealing it. Jeth said right away he had heard the shots and had seen the deer fall, and he said furthermore that the boy was going to have the deer.

"Well, right there a fight started. One of the big guys called Jeth a meddling so-and-so

*By Jack Anderson*

and waded in. Jeth knocked him flatter than a bartender's instep. That guy has a wallop, I'll tell you; I know! But then a shot rang out from some of the others—who, no man knows—and the bullet went into the flesh of Jeth's leg.

"But one thing, don't forget, the boy did get his deer, even if the other hunters did escape."

Jeth reached home at dusk. Weary, the dog, squirmed and wagged an enthusiastic welcome. And Jeth laughed, and played, although his eye roamed often to Mosey Wood Lake, sleeping peacefully now in the blood of sunset. He went into the cabin and got his suitcases, which were already packed. Weary followed him, eager-eyed with curiosity, throwing worshipful glances up at him. In his own way, Weary asked, "Where are we going?" Jeth felt a swelling in his throat as he patted the dog gently on the head. "No, Weary boy," he said, "not this time, you won't go." Outside, he paused again. Now twilight shadows gathered; from the dusky depths of the forest drifted the cold sunset breeze, heavy with pine and spruce, bringing along the softness and coolness of rushing mountain streams, stirring a faint whispering unrest in the tree tops. Mosey Wood Lake dropped gradually into darkness, lighted only by a quivering ribbon of copper thrown by a dying sun. From far off, back in the swamp, a fox yapped weakly. "If only I could grasp hold of something," Jeth told himself. "If only I could see clearly—" He felt a lump in his throat. "If only I could see clearly—in mountaineer's language—what I was going to fight for in a foreign land!" But then he shook himself, and started out for Old Grat's place.

Old Grat sat on the front porch of his home, half asleep, Mange curled at his feet to "keep away the frost", as Grat himself expressed it. His wife's voice was rough and angry, coming along with the rattling of dishes from the pantry.

"Manda," Old Grat called, at sight of Jeth. "Manda! Jeth's here. Cut the grousing now."

"What's the trouble, Grat?" Jeth asked.

"She wants me to help with the dishes. Dang it, it ain't a man's duties. Come on inside and I'll stoke up the kerosene lantern. Where's Weary? Bringing him over tomorrow morning, eh? Let's see, you leave in a couple days—"

Yes. Yes, he'd leave in a couple of days. Following Old Grat inside, Jeth realized that he did not enjoy to hear of it.

Grat's wife, fat and bustling as ever, greeted Jeth with a smile that spread gradually until it creased every inch of her pudgy face. "I have socks I knitted for you, Jeth. I knitted them for a soldier, and it may as well be you. I'm baking toll-house cookies for you, too—"

Jeth was thinking. What for? What for? To what would he return? But then he remembered Tom Shields, thin, rawboned Tom with the slightly-stooped shoulders and sly smile, and remembered the words of wisdom of this kindly outdoorsman, "There are things nothing can take away from you, Jeth. They are the things you love; they are a great part of YOU. There is the sky, a stream, a lonely forest; there is the leap of the mountain trout, the bounding of a white-tailed deer." Yes, regardless of what else happened, if he returned these things he could enjoy. And what else mattered? But still the thing troubled him: What thing could he grasp to, to tell him clearly what he was fighting for?

Old Grat's voice snapped him to reality. "Well, hunting along Hayes Creek ain't going to be so good now."

"No?" Jeth showed awakened interest. "What now?"

"There's a big elk ranging along there. Where he came from, nobody knows. Wherever it was, his own range doesn't satisfy him, he's got to go into other territory. He's about the meanest one creature on four legs. Warden Gil Bowman saw him beat down a big white-tail buck and chase the herd down Hayes Valley some time ago. I saw him plunge into a nest of drowsy white-tails myself. He scattered them to the four winds. Reports are coming in time and again of that mean critter. Since he's come into this territory white-tails are scarcer than hen's feed."

"That's the first case of an elk I ever heard of around here," said Jeth.

"Well I'm telling you, I'd plug him full of holes in a minute flat if it wasn't for the law," Old Grat declared. "Them deer has the right to that range, and—" The old man broke off. "But then why talk of that, Jeth? After all, this is about our last night together." He lifted his head to shout. "Manda! Get out the elderberry wine, will you? And bring in a couple of glasses, too!"

The following day Jeth completed his packing. It was rather tough to pack away the trusty old shotgun, piece by piece into the canvas case, thinking all the while of all the glorious days hunting with it. He tucked away the rifle, too, caressing it tenderly one last time. It was a parting with old friends. Every piece of equipment that he packed away was attended by a heaviness of heart.

He carried everything to Old Grat's place. And with him, by his side, was Weary. The faithful old dog lolled his tongue in happiness, romping by his master's side. The dog had no way of knowing that his hours with the man he loved were very few.

And all this while Jeth was troubled. He knew that it was wrong for him to be troubled. He knew that he was off for a duty far greater than life itself. He knew, and yet he was uneasy of mind. And he knew why. He told himself why, again and again. He wanted to grasp hold of something that would tell him clearly, in mountain tongue, why he was leaving to fight. Coming out of the house with Old Grat, Jeth said, "I'm going off on a last hike in the woods, Grat, alone."

"Sure Jeth, I know how you feel. I'll get the car ready for you to leave as soon as you get back. You can get to the station at White Haven in fifteen minutes—if Bertha feels like running well today. One of the boys can bring her back."

Jeth struggled with the old gate on the edge of Grat's property. It was a rusted iron gate that clung too tightly to the iron latch. After a long struggle the gate flew open. "When are you going to fix that gate, Grat?" Jeth asked, smiling.

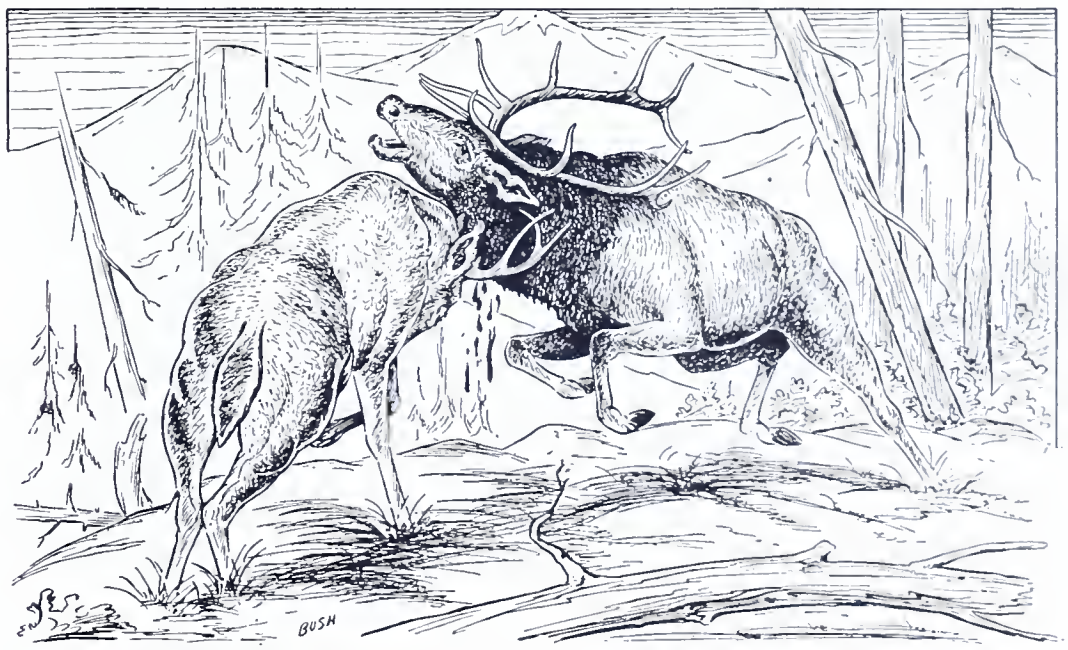
"Oh I'll get around to it. One of these days. Ain't no hurry."

Jeth walked off into the woods. It was early afternoon and a light breeze danced from tree to tree, turning the leaves of the quaking asp and flashing them in the sun, whispering soft cadences through the pines. A woodthrush sang merrily from a grove of grey birch trees. Farther in the forest, a woodpecker hammered energetically. To Jeth, all this was beautiful—was home. He was at peace with the world. For a moment, even the trouble was in the deepest recesses of his mind. But then, suddenly, he felt lonely again—lonely, and loath to leave.

After a time, a noise aroused him. It was the snort of a deer. He stopped short. Ahead of him, was an open stretch in the forest, where there were high ferns and rotted stumps and here and there a grey birch sapling. He saw four does and a fawn running ahead of him, down toward the swamp-lands. The white flags were flying. A crashing of brush behind them told Jeth that this was not all. He stood very still, careful not to move a muscle. And then, soon, he saw. He gasped.

It was a huge elk he saw, a big and great-

*(Continued on page 26)*




**Like a flash, Old Cripple's horns drove home on the side of the neck.**

# PENNSYLVANIA WILD TURKEY FOOD HABITS

Photo by W. L. R. Drake.

A wild turkey tom and his harem.

IN September 1941 a study was inaugurated on the life history and management of the Eastern Turkey *(Meleagris gallopavo silvestris)* in Pennsylvania. In order to learn more about the range requirements of the bird, its food habits had to be studied. Crops were obtained during the hunting season; but the foods represented were those for November only, and a much more complete year-around survey was needed. Because of the difficulty in obtaining a sufficient number of crops, it was decided to analyze turkey droppings. The collection of droppings required no killing of valuable birds, whereas crops were obtained only by collecting turkeys.

The study was carried on under the direction of Dr. Logan J. Bennett, Biologist, U. S. Fish and Wildlife Service; Dr. William C. Bramble, Associate Professor, Department of Forestry, The Pennsylvania State College; and Dr. P. F. English, Associate Professor of Wildlife Management, Department of Zoology and Entomology, The Pennsylvania State College.

Turkey droppings (fig. 1) were collected from September 1, 1941, to July 1, 1942, from various turkey flocks in Huntingdon, Centre, Bedford, and Fulton Counties. The largest majority of droppings came from the Seven Mountains region in Huntingdon County.

Dalke (1935) determined the seasonal food habits of Ring-necked Pheasants *(Phasianus colchicus torquatus)* in Michigan by examining droppings. Dalke compared the results of dropping analysis to crop analysis and found them to be closely correlated. Wilson and Vaughn (1936) studied the food habits of quail during the winter by dropping analysis. Swanson (1940) reported on the food habits of the Sharptailed Grouse *(Pedioecetes phasianellus)* by analysis of droppings. Dalke, Clark, and Korschgen (1942) analyzed 3,244 turkey droppings from Missouri.

Droppings were collected when opportunity permitted during regular field work. They were placed in one-pound paper bags, labeled, and examined later in the laboratory. Gross examination of droppings in the field was valuable in that it showed the major foods eaten. Minor foods may easily be missed.

Dropping analysis had certain definite limitations. There were seeds, such as sassafras *(Sassafras officinale)* and benzoin *(Benzoin aestivale)*, that had thin seed coats and probably were digested, leaving little evidence that turkeys had utilized them. However, if they were eaten in large quantities, the droppings would have shown evidence of such seeds.

It was not possible to obtain a definite percentage of the total volume of any particular food consumed by measuring a dropping. This fact was true primarily because it was not known what percentage of a certain natural food was eaten and digested. (The frequency of occurrence is, perhaps, a better criteria by which to judge the preference for various foods when dropping analyses are made.)

It was highly important to gather droppings from as many turkey flocks as possible. If droppings were collected from a limited number of flocks or from one area, the food preference would not necessarily be typical. The food habits of turkeys in any particular locality were governed by three important factors, namely, (1) the availability of a particular food, (2) the abundance of the food, and (3) its attractiveness to turkeys.

In the laboratory droppings were analyzed by first determining the volume in cubic centimeters in a graduate cylinder. This was done by measuring the displacement of water. This method gave the volume and also softened the dropping for analysis.

The droppings were then spread on a paper towel in a convenient tray, broken apart by forceps, and separated as to their various food items. Broken seeds were compared with a collection of known broken seeds. The powerful action of a turkey's gizzard was realized when hard seeds, such as black gum *(Nyssa sylvatica)*, flowering dogwood *(Cornus florida)*, and black cherry *(Prunus serotina)* were observed crushed into small particles. Close examination with a binocular microscope usually revealed some characteristic that distinguished a certain species from another. Unknowns were placed in small paper packets, labeled, and set aside. After working with droppings for a period of time, one usually was able to recognize certain unknowns. Careful study with associates who had conducted food analysis work often identified the unknown. The percent by volume of various foods was made by ocular estimate.

Results were tabulated on a 3- by 5-inch filing card (fig. 2). The bag containing the dropping was given a number corresponding with the card and was filed away for future reference.

Dalke, Clark, and Korschgen (1942) analyzed turkey droppings more intensively. The droppings were first soaked in water for 24 hours. The softened dropping was then broken apart with mortar and pestle. The pulped material was placed in a Gritz gauze covered funnel to drain. It was then shifted to blotting paper to absorb the remaining moisture; and, finally, the material was completely dried in an oven. The particles were then examined under a binocular microscope. An estimate was made of the percent of food items in each dropping.

In all, 770 droppings were analyzed by the writer. The average size dropping was 2.73 cubic centimeters. The report is presented on a seasonal basis. The seasons were divided as follows: (1) Spring (April and May), (2) summer (June, July, August, and September), (3) fall (October, November, and December), and (4) winter (January, February, and March). The distribution of droppings over various seasons was as follows: (1) Spring, 90 droppings; (2) summer, 140 droppings; (3) fall, 176 droppings; and (4) winter, 364 droppings. No droppings were collected during July and August.

Table 1 shows the spring foods of wild turkeys. Acorns *(Quercus spp.)* were foremost in importance during this season of mating and nesting. Grass *(Gramineae)* material was second on the list. It was in-

[1] Paper No. 37 from the Pennsylvania Cooperative Wildlife Research Unit. Fish and Wildlife Service (U. S. Department of the Interior), The Pennsylvania State College, Pennsylvania Game Commission, and American Wildlife Institute cooperating.

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[2] Graduate Assistant, Department of Forestry, The Pennsylvania State College.

# BASED ON DROPPING ANALYSIS

*By Edward L. Kozicky*

teresting to note the prevalence of cherry in the droppings. This was mostly black cherry. Grit reached its highest percent of the total volume in the spring season. Insects and snails (Gastropoda) were readily taken by turkeys in the spring.

Table 2 shows the food preferences for the summer season. Grasses lead the list. It was common to see grasses, especially panicum grass, stripped of their seed in turkey country. Huckleberries *(Gaylussacia* spp.*)* and blueberries *(Vaccinium* spp.*)* played an important role in the diet of turkeys in summer.

The percentage of grape *(Vitis* spp.*)* and acorns would both probably have been lower if droppings had been collected during July and August; insect material would probably have been higher.

In table 3 the fall food preferences are listed. Acorns lead the list. Dogwood, black gum, and wild grape would be more prominent if they were not suppressed to such a high degree in the area where the majority of the droppings were collected. During the late summer and fall turkeys frequented cultivated grain fields near good forest cover, if not disturbed. In 1941, however, because of the abundance of acorns, cultivated grains were not so important as a turkey food.

Table 4 presents the food preference in winter. Acorns again head the list. Wild grapes are second. Although, from field observations, wild grapes were preferred to acorns, they were not so abundant. Artificial feed taken at established feeders maintained by Game Commission field men and sportsmen is third in importance. If acorns had been scarce and snow had persisted on the ground for long periods, artificial feed, no doubt, would have been more important.

The foods that were taken all four seasons of the year were as follows: (1) Acorns, (2) grasses, (3) grape, (4) cherry, (5) dogwood, and (6) snails. Grit in small amounts was necessary during all four seasons of the year.

Table 5 presents the analysis of five crops. The corn contained in one crop was known to be bait. Table 6 is the analysis of 14 stomachs or gizzards. All crops and stomachs were collected by Game Commission field men and sportsmen in November 1941.

The dropping analysis compared favorably to other food habits work conducted on wild turkeys. Rivers (1940) examined 439 crops and stomachs in Virginia at various seasons over a 4-year period. Rivers did not examine any crops taken in the summer, and only 10 were collected in the spring. Two of the conclusions that Rivers reached were as follows: "(1) Of the large number of foods eaten by wild turkeys only a few form sufficiently large percent of by bulk measurement to be termed important. Oak *Quercus* spp., grass *Gramineae,* dogwood *Cornus florida,* grape *Vitis* spp., and beech *Fagus grandiflora* are those foods eaten by the turkey in Virginia which form over three percent of the bulk of the food eaten. (2) Preferred foods do not necessarily form the largest percent by bulk of the foods eaten, oftentimes the preferred foods being absent from an area."

The two conclusions arrived at for Virginia by Rivers would be true of Pennsylvania, with two exceptions. Beech *(Fagus grandiflora)* is not present in sufficient quantities within the Pennsylvania wild turkey range to be considered a major food. Insects probably would be more important if Rivers had the opportunity to examine crops taken in the summer. The dropping analysis in Pennsylvania did not show dogwood and black gum to be so important as in Virginia. However, these two species are suppressed in many parts of the Pennsylvania turkey range, and they did not produce an exceptionally heavy seed crop in the year 1941.

The fact that preferred foods did not always present the largest bulk of the food eaten was also true in Pennsylvania. Wild grapes were preferred to acorns. White oak *(Quercus alba)* acorns were taken before other acorns if they were available.

Martin and May (1939) examined 114 crops and gizzards in the fall from the George Washington National Forest. They found

*(Continued on page 28)*

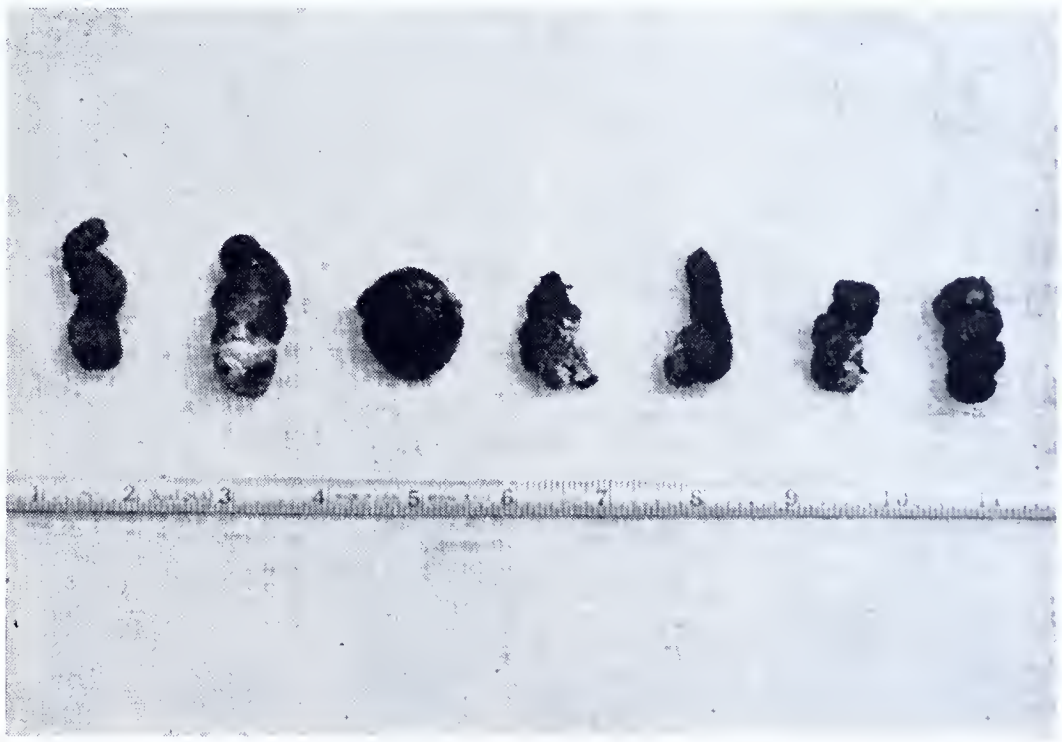
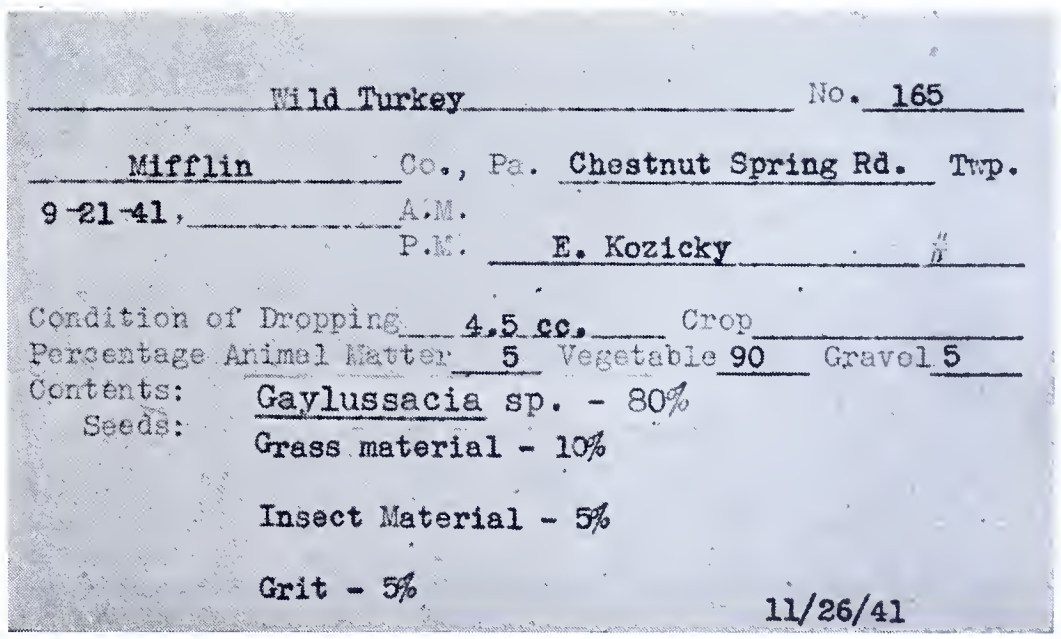


Figure 1. Turkey droppings.



Wild Turkey No. 165

Mifflin Co., Pa. Chestnut Spring Rd. Twp.

9-21-41, A.M. P.M. E. Kozicky

Condition of Dropping 4.5 cc. Crop

Percentage Animal Matter 5 Vegetable 90 Gravel 5

Contents: Gaylussacia sp. - 80%

Seeds: Grass material - 10%

Insect Material - 5%

Grit - 5%

11/26/41

**Figure 2. Filing card of dropping analysis.**

# But You Can Cure a Game Hog

*By Joe Austell Small*

*Reprinted Special Permission "American Field."*

"His eyes grew wild, and before I realized what was happening he had swung up and blazed away."

JIM Watson was a jam-up good fellow. He went to Sunday School, paid the preacher, was fair and square in business deals, spanked his kids when they needed it and cussed the Japs. In other words, he was a normal American citizen in all respects but one—Jim Watson couldn't break himself from shooting quail on the ground. . . .

I used to lay awake nights and make excuses for him in my own mind. Surely a man as decent and well liked as Jim in all other things just couldn't be a *game hog.* But I'd always end up by experiencing a sort of empty feeling in my stomach and a certain gloom could mean only one thing—I hadn't convinced myself!

It wouldn't have been so bad if Jim had been an all around bad sort of fellow. You would expect him to be a cheat at anything then. But to be white at everything else and then shoot qail on the ground. . . . Ordinarily, it wouldn't have been any of my business. But I liked to be with Jim. We had formed quite a friendship. Then I found his weak point. I also found that Jim had no friends left among dog men. So I decided to cure Jim of his one black mark.

The season was no more than a few hours old when Jim and I topped a low ridge and entered quail country. The ground crunched cold and stiff under our feet. The air was crisp and clean. It was one of those mornings that erases long hours of stale office air from a man's lungs and makes him feel young inside.

Lady was naturally a little too eager during those first few glorious moments of that opening day hunt. She was ranging too wide and working too fast.

Then as we crossed a dry weed-choked wash, Lady to our right and fully a hundred yards away, I heard the peculiar little startled noises made by a bevy of quail as they left their hiding place and spread out in a fan-shaped cluster of retreating wild beauty before us.

Jim stopped with a jerk. His eyes grew wild, and before I hardly realized what was happening he had swung up feverishly and blasted away. Six dead quail lay in a scattered pattern of feathers among angry gashes in the ground made by buzzing bird shot.

I didn't say a word, just stared at the havoc he had wrought, looked him in the eye for a brief moment, turned and walked away. I had seen the eagerness in his face, the wild desire to kill in his eyes. It was simple enough. Jim was suffering from a plain case of game hoggishness.

He caught up with me a minute later. He walked with a certain strained stiffness and his eyes were on the ground a few feet ahead. I said nothing.

"I've tried to break myself of it for years," Jim began. "I know it's the lowest type of sportsmanship. I've lost my best friends because of it—but looks as if I'm hopeless. It doesn't bother me when a dog is handling the birds, when I don't see them—but at times when I run into a bevy unexpected like, they scatter with those startled little cries and it looks like they're getting away—it's just too much for me! I do it before I think."

"When it was too raw to hunt I'd go out and help Sam Yancey 'tote' feed to the birds."

I didn't hunt with Jim again until the latter part of that season. For one thing it was the worst weather we had experienced in years. And, too, I just couldn't quite erase from my mind that row of fine game birds lying on a spot of ground littered with feathers.

When it was too raw to hunt I'd go out and help Sam Yancey "tote" feed to the birds. Sam was an old timer, quick tempered but with the right kind of heart. I had leased the shooting rights on his farm for the past six years. Sam loved his quail, and the treated them like they were more than merely wild things—perhaps they were to him.

One bevy, over in the yaupon thicket, Sam had pulled through a hard winter. He had to carry feed for a full mile over rough country, and by the time things got a little better and the birds could uncover a little food for themselves Old Sam felt almost a paternal instinct toward that "yaupon bevy" as he called it. Certainly he had saved them from almost certain extinction even though it had cost Sam many an hour of toil and exposure.

I'll never forget the beauty of that morning late in the season when Jim and I again walked out across the rolling hills of Sam's farm. Conditions were perfect for good hunting. Lady swung in to a pine-encircled corn field and froze on point. The birds were in heavy weeds on the old turning row, near a brush-lined creek that formed the field's southern border. The bevy split. I took one on the right side, and Jim made a beautiful double on the left. His face lit up and a smile showed his joy in the hunt.

"Shooting above par today!" he admitted, taking a plump bundle of brown from Lady's mouth. "Or maybe I'm just getting good!"

"That's just small stuff, bud!" I chided. "Just watch me on the next one."

It was one of the most enjoyable days I ever spent afield. I couldn't have asked for a better companion than Jim that day nor a better sport. I felt a surge of pride. Hunting with me, I believed, had brought him out of it. I remember feeling that if I never accomplish another thing in my life, I would not have lived for naught!

The sun was sliding to earth in a long streamer of crimson beauty to the west when we decided to call it a day. Jim had his limit for the first time that year and I only lacked two. It more than made up for those long, icy days we'd had to stay in. We were on the back side of Sam's farm and had a good walk ahead of us yet.

I had called Lady to heel, and we were walking along chatting amiably when a bevy crossed the trail not twenty yards ahead of us and rattled the dry leaves in their scurrying attempt to reach a thicket to the right.

*(Continued on page 27)*

"Then he started for Jim. His face was contorted with anger."

# Get Ready

*By Jean Wykoff*

WHAT does October 31 mean to you? Is it just another day or another month or does it mean more monthly bills in the morning mail? To me, that date spells r-a-b-b-i-t-s, and the first day of the '42 season! I want to fire the shot that will shoot the sun sky-high. My toes twitch for the feel of those scratchy, bur-covered socks. My trigger finger wiggles in anticipation and practice. Breeches are laced, boots have been oiled, and guns glisten from weeks of polishing. The hounds whine incessantly, straining at their leashes. The entire family feels the effects of the approaching excitement. Already mother has adopted that disgusted scowl which is aimed at Dad and me when greasy hightops are dropped in the front hall. Grandmother is doing her sleeping while she has the chance. There is no place for sleepy heads when lunches have to be packed by five A.M. And Dad? You can't miss that special gleam that twinkles in his eyes only during hunting season. To Pennsylvania Game Commissioners, he is just one of the six hundred thousand rabbit hunters, but he sees himself as Daniel Boone. I know, because then I am Boone's daughter.

**Alibis to Femininity**

So you're a girl and you want to go hunting! And you wonder why it should cause so much comment. But if you're in earnest, you'll go anyhow . . . and you'll love every step and sunset of it.

More than anything else, you'll like the feel of being a hunter. Your imagination will picture Indians or ferocious animals hiding in the next clump of trees, but your gun is gripped closely to your ribs and you would dare to fight your way out of anything. You tiptoe across dried leaves to attack an unsuspecting enemy. Sometimes you are a frontiersman out to get the evening meal or perhaps the hermit who ignores all the conveniences of civilization, but always you are the wary and brawny woodsman who can "bring 'em back alive." There's no place for imagination and games, though, when the hunt begins. Your gun, hard and sleek, gives you a feeling of abandon. Nostrils quiver when the smell of exploded gunpowder cuts the air. The swish, swish, swish of canvas rubbing canvas as you walk keeps time with the clump, clump, clump of oiled boots. Your open corduroy collar flaps noisily against the worn leather jacket that reeks of cow stables. Your hound will whimper at your feet, waiting for the royal command that will set him free and onto the trail. People in town will stare at you in your muddy garb, but the license plate centered on your back serves as your excuse to conventionalities.

My new association with my father is a part of that "feel." To him I am a fellow hunter, one whom he would help over barbed fences, but leave to gut my own rabbits. He and I were never so close as when we became wood and field companions. Such a comradeship as ours can grow only from an equal basis: hunting is our common interest for that basis. Not until after our first jaunt did I know Dad as a man and not merely as my father. How inconceivable

Miss Wykoff.

it would have seemed five years ago to think of his telling me risque stories or letting me worry with him about next month's gasoline bill. I discovered things in him that I might never have known if our relationship had remained purely consanguineous. Who would have believed a parent could be so much fun and really not so different from the smoothest boy friend? On the other hand, Dad is as proud of me as I am of him. He enjoys bragging me up to his cronies with whom we usually hunt. My struggles to avoid fuss and complaints is accepted without question by him who formerly knew his daughter only as a glamourized jitter-bug. I think Dad is flattered that I would crawl from the coziness of my bed to join him in the icy dawn of a drizzly morning; nevertheless, he shows me no more consideration than he would to another man. At first I wondered if this meant I was growing up, but since the day he slapped my back and murmured, "Nice shot, son," I have known he was accepting me not only as an adult but as a fellow hunter.

You don't have to be a "good shot" to be a sportsman, girls. If I missed every shot of the day, I couldn't begrudge the time spent. Just being out-of-doors is more than half the sport. By saying "out-of-doors", I don't mean those perfect-weather-for-football days that even Grandad can't resist. Who *can* sleep abed when an Indian summer sun smiles on the crazy-quilt patterns formed by the fields scattered over the countryside? Those days are the cake and ice cream desserts doled out by Diana when her mood is bright. Your stride lengthens as you near a hilltop and pure exhilaration spurs you on and on to see what lies beyond. Often you will drop to the ground to watch the puffy clouds amble across a sky colored as only autumn can color it. Goldenrod waves rhythmically, always in keeping with the wind's whispered invitations. The moss beneath you is springy, inviting, and unless you heard that scuttle in the brush nearby, you

*(Continued on page 32)*

**People in town will stare at you in your muddy garb but the license plate on your back will serve as your excuse to conventionalities.**

# A Progress Report on Cottontail

*By John R. Langenbach and John D. Beula*

Photo by Allentown Morning Call.

**Berks County sportsman removing rabbits from corral on Maiden Creek Watershed.**

THE cottontail rabbit (Sylvilagus sp.) is undoubtedly the most important game species of the resident hunters of Pennsylvania. During the past years an increase in the number of hunters has also increased the demand for greater numbers of cottontails. These tendencies have stimulated action by the Pennsylvania Game Commission and the sportsmen of the Commonwealth to increase the rabbit population.

During the past 25 years numerous theories have been advanced and practiced in an attempt to increase the cottontail population; and during this period the largest expenditures to that end resulted from the importation of cottontails from other States. The majority were imported from Missouri, Kansas, Iowa and Arkansas. In recent years shipments have been accepted from Missouri only.

Although cottontails have been imported for many years, there has long been a contention among employees of the Game Commission and sportsmen that this practice did not materially increase the shootable population. The contention was based on the fact that the rabbits were transported and released during the winter when food and cover conditions were at a minimum. The animals could not be imported at times when the environment was more favorable for several reasons. First, good management prohibited rabbit trapping after the breeding season had started because some females had young in the nest, others gave birth to young in transit, and females that were "heavy" with young often died in transit. Second, it was almost impossible to ship cottontails when the weather was warm since the loss in transit was exceedingly high. Third, it was practically impossible to catch large numbers of rabbits after the breeding season had started.

All factors, carefully considered, made it necessary to import cottontails at a time of the year that was unfavorable for transportation and release; and it is impossible to hold large numbers of cottontails in captivity without tremendous expenditures for individual hutches. This latter cost is prohibitive.

Considering the amount of money spent annually by the Pennsylvania Game Commission and the sportsmen to import rabbits from other states it was deemed advisable to study the success of these plantings. Accordingly, a project was instigated in January of 1939 by the Pennsylvania Game Commission's Division of Research to determine the success of liberating imported western rabbits.

By this time the Commission had inaugurated its plan of trapping native rabbits from areas that were closed to hunting and releasing them on lands that were open to public hunting. The areas from which rabbits were thus removed included municipal parks, watersheds, State Game Propagation Areas, private orchards, nurseries, etc. When this live trapping of native cottontails was expanded to cover the entire Commonwealth the Commission announced that as the program developed it intended to curtail, and probably finally discontinue, its rabbit importations.

There have been tendencies toward agreement that when rabbits used for stocking were released in a climate and habitat that corresponded to the climate and habitat in which they were reared there was a greater chance of success when compared to rabbits that had been introduced from other states. Incidentally, the exportation of live rabbits is rapidly being curtailed by other states.

### The Experiment

The project instigated to study the success of introduced rabbits was carried out in Wildwood Park; one of the parks maintained by the City of Harrisburg. This park is also a State Game Propagation Area, No. A-5. Although the park contains approximately 600 acres of land and 100 acres of lake, the experiment was conducted on a southern portion constituting approximately 150 acres. From this project it was hoped to determine the advisability of continuing the importation of western rabbits.

Equal numbers of imported rabbits and native Pennsylvania rabbits were released at the same time on the experimental area. Each animal was tagged, sexed and weighed. After the animals were released a constant live trapping program was inaugurated. Each time one was trapped all pertinent information was recorded. All rabbits that were found dead were sent to the Bureau of Animal Industry Laboratory of the Pennsylvania Department of Agriculture or to the Tularemia Research Unit of the University of Pennsylvania for a complete autopsy, with special emphasis on communicable diseases.

In January of 1939 and February of 1940, a total of 88 Western rabbits and 96 Pennsylvania rabbits were released on the study area. The Pennsylvania rabbits were not from Wildwood Park or the immediate vicinity. The information obtained on these animals extended from January 18, 1939 to August 31, 1940, a total elapsed time of approximately 20 months. During this period, 22 animals or 25.0% of the Western rabbits were found dead, as compared to 7 animals or 7.3% of the native rabbits. (See Table 1) Although the sex ratio of the animals released was not 1:1 the percentage of each sex

# Rabbits in Pennsylvania

TABLE 1
COTTONTAILS KNOWN DEAD

| | WESTERN COTTONTAILS | | | | | | PENNSYLVANIA COTTONTAILS | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *Male* | | *Female* | | *Total* | | *Male* | | *Female* | | *Total* | |
| *No. Released* | 47 | | 41 | | 88 | | 27 | | 69 | | 96 | |
| | No. | *% of Total | No. | % of Total | No. | % of Total | No. | % of Total | No. | % of Total | No. | % of Total |
| First 24 hours | 2 | 4.25 | 1 | 2.44 | 3 | 3.4 | .. | .. | 1 | 1.45 | 1 | 1.04 |
| Second to Seventh Day | 5 | 10.63 | 3 | 7.32 | 8 | 9.1 | .. | .. | 1 | 1.45 | 1 | 1.04 |
| Second to Fourth Week | 4 | 8.50 | 2 | 4.88 | 6 | 6.8 | .. | .. | 1 | 1.45 | 1 | 1.04 |
| Prior to Breeding Season | 1 | 2.12 | 1 | 2.44 | 2 | 2.3 | .. | .. | 2 | 2.90 | 2 | 2.08 |
| After Breeding Season | .. | .... | 3 | 7.32 | 3 | 3.4 | 2 | 7.4 | .. | .... | 2 | 2.08 |
| Total Known Dead | 12 | 25.50 | 10 | 24.40 | 22 | 25.0 | 2 | 7.4 | 5 | 7.25 | 7 | 7.28 |

* Percent indicates the percent loss per time period as compared to the total number released in each sex group.

lost was constant within each group. Note in Table 1 that 25.5% of the Western males died as compared to 24.4% of the Western females died. In the case of the native rabbits, 7.4% of the males died and 7.25% of the females died. Other uncompleted experiments have also indicated an equal sexual mortality among cottontails.

Continuing in Table 1, the figures show that a total of 19 Western rabbits died prior to the breeding season immediately following release; this was 86.3% of all the animals that died and 21.6% of all of the animals released. Using the corresponding figures for the Pennsylvania rabbits; 5 died prior to the breeding season immediately following release. These 5 represented 71.4% of all the animals that died but only 5.2% of all released. There are several other interesting facts to be found by studying Table 1 but it is not necessary to enlarge upon them here. From this experiment it would appear that there can be an expected mortality of 20 to 25 per cent of the Western rabbits prior to the breeding season.

During the same period that this experiment was being conducted the co-author was carrying out additional investigations. These investigations, how they were carried out, and the results obtained follow.

One primary factor of winter restocking has been to induce natural reproduction before the subsequent shooting season. Consequently, it behooved us to know the importance of these breeding activities, and more specifically to determine the average number of young each released female would produce. Four phases of the cottontail's life history, namely, the average number of litters per year, the average number of young per litter, nestling mortality, and juvenile mortality must be considered in this determination.

In Pennsylvania, the cottontail nesting season was known to extend from March through September, approximately 7 months. The breeding period necessarily proceeded the nesting season by one month, for the gestation period of the cottontail was found to be 28 days. Figuring from these fundamental but incomplete data, it has become the general misconception that a single female would have as many as 6 litters per year. Also the breeding habits of the cottontails have been erroneously compared with those of the altogether distinct domestic hares, and although both are commonly called "rabbits" this comparison has further extended the general misconception.

Recent information indicated that female cottontails have a receptive period ranging from 3 to 5 months, and that no single female remained sexually active throughout the entire seven-month breeding period. The breeding season was thought to be extended, therefore, by the fewer individuals whose periods of sexual activity come before and after those of the majority of the population. Although cottontails normally breed within 48 hours after parturition three or four litters per year appeared average. Artificial propagation experiments of the Pennsylvania Game Commission have shown that some females produced two litters per year, and others were thought to have produced a third (Gerstell 1937). In view of these data, it was the assumption of the writers that Pennsylvania cottontails, on the average, produced about 2.5 litters per year.

Sexual maturity of cottontails has been determined by Trippensee (1934) as approximately 40 weeks, and cottontails born in early spring have never been known to breed by fall.

During the past four years, 162 litter counts have been obtained in various sections of Pennsylvania. The number of young per litter ranged from one to nine, and has averaged 4.92. If the average female cottontail produced 3.5 litters per year, with an aver-

*(Continued on page 30)*

**Every year thousands of sportsmen trap rabbits on lands closed to hunting and transfer them to areas where public shooting is permitted. The above group of Berks County sportsmen is chasing rabbits ahead of them towards a corral.**

The Camp during November.

# Log of Rattlesnake Shack

*By A. B. Champlain*

The photos used on this series have been made by H. B. Kirk, R. M. Baker, M. J. Myers, or the author.

WE have had our thrill in the preparation for the small game season. When we enter the field we should not center our efforts altogether in the chase which ends with the bag of game. After all, the real benefit to us sportsmen is the pleasure and recreation derived from general outdoor activity and camp life. We enjoy the sunrise, a novelty for many of us. Then come bacon, eggs, toast and coffee, as fragrant a bouquet to a hunter as any bunch of flowers. After that, exercise and observation—the slow motion stealthy kind—the violent hill climbing that makes us puff and blow (darn that sedentary office job). And then! the startling whirr of wings as the "king" of game flashes into view for a fleeting moment, and crashes through some browning oak foliage. Finally, when "Old Sol," dips behind the hills, we trudge our weary way back to camp; food again, over which we "chew the fat" of our day's adventures, with a few imaginative additions. All this and the good fellowship involved add to our pleasant recollections in afterlife.

This season of 1942, Rattlesnake Shack and neighboring camps pay tribute to members and friends who are away serving their country—may they return safely to again enjoy the rights and privileges we are determined to preserve.

**November**

Activities similar to those around Rattlesnake Shack during the small game season are probably well known to most sportsmen, however, certain items may be of interest. We encounter more deer this period than at any other time. Deer are "on the move" and hunters are roaming the trails and forest lanes. A familiar incident that many of you have observed with variations is recorded here as an example.

The shadows of evening are creeping in as we quietly and alertly return to camp. Presently along side the trail there is a light rustle, cracklings in the dry leaves as they are pressed by dainty feet. We expect to see a squirrel or some small creature emerge from the tangle of the forest edge. Instead there appears a beautiful doe, who with unhurried determination swings into the trail in front of us and crosses to the lower thicket, and then, following her comes a handsome buck, full grown and of large size, his eight-point antlers standing out in regal splendor as he proudly steps into the clear path and stands for a moment looking directly towards us with deliberate nonchalance. He then follows the object of his heart's desire without haste or hesitation, and there passes between the pair one of those silent animal communications. They pay no further attention to us and leave us gasping in admiration. We are startled as another doe quickly leaps across in the same direction; and the soft footed movements of all three continue to break upon our ears for several moments afterward.

Our mountain rabbits encountered during the small game hunt are those seasoned veterans who have escaped the foxes, weasels, snakes, housecats, hawks, and owls. In spite of all this there have been some good chases along the creek when hound dogs have been used.

"Frisky."

**This is the 5th of a series of Nature Stories by Dr. A. B. Champlain, State Entomologist.**

Speaking of rabbits, there is a saga concerning Marty Myers and his dog Frisky, which indicates that instinct is closely akin to intelligence. Frisky was a family dog, occupying a star position in the Myers household. She was pampered, petted, fat and happy, but in spite of all this her natural inclinations asserted themselves, for she was a true rabbit hound. When Marty got out the old "shootin' iron," to take it for a walk, Frisky was always on the job. One day Marty started out along the creek, Frisky frisking along in great glee. Well it was no time at all until the little dog brought a nice big bunny tearing out of the high grass and weeds. Marty let go both barrels, one after the other—the rabbit with a sassy jerk of its tail ducked back into the "bresh" again. Soon Frisky brought Br'er rabbit out another time and again Marty blasted away. After the fifth or sixth round Marty's shells were dwindling. The rabbit seemed to enjoy the merry-go-round but Frisky looked disgusted. Once more the rabbit dashed into the grass patch, Frisky after it, her short legs moving in high gear. There was a thrashing of stems and foliage, an enigmatic bark from Frisky and a squeal of protest from the quarry and then for a moment silence. Finally out marched Frisky, panting and heaving, but proudly waving that sassy rabbit from her jaws!

Our gray squirrel population has varied in density over the years. However, we have maintained a squirrel sanctuary in the shack area by requesting our hunters to refrain from killing those individuals living or nesting adjacent to camp. In this way we have been able to maintain a center of distribution for the general locality. These squirrels have been fed throughout the winter seasons through the cooperation of local sportsmen and our game protector.

Among the small mammals sighted during this month were those nocturnal prowlers the raccoons, skunks and opossums. One little "'possum" became so tame it would climb the squirrel feeder each night to get the food placed there for our grays. We could approach quite close and even pull its tail without causing it much annoyance. It would hiss and snap a bit and go on with its feeding. One evening a skunk and a large "'possum" met at the scrap pail—it was the only time our skunks ever made the locality unpleasant for us.

An occasional flying squirrel would also visit our feeders at night. These interesting creatures are rather plentiful in our mountains. They inhabit old red or gray squirrel nests, woodpecker holes in dead aspen and similar situations. We also have a few red squirrels in the area, and woodmice, shrews and moles, all make interesting neighbors.

During this time various clans of the coon-hunting fraternity keep the nights alive and interesting. We hear the baying of hounds which indicates that a "coon" is pressed for time, or has been treed on some old gum tree.

November birds, in addition to our game species are listed in the "records" from the shack vicinity. One November 11th we were treated to the spectacle of a scattered "group" of pileated woodpeckers, moving through our lower woodlands. The white marked wings of these large birds as they flitted low among the trees attracted our attention, in addition to the calling sounds as they signalled their presence. We have often wondered concerning the significance of this gathering of unusual birds.

We also list the downy and hairy woodpeckers, which with the titmice, chicadees and a nuthatch or two, come to our feeders for suet. This little flock will spend the winter with us in company with a few cardinals and many juncos who also appear in November. Other bird neighbors include a few blue jays and fox sparrows early in the month, then flocks of robins, ruby and golden crowned kinglets, goldfinches, purple finches and some brown creepers. One year a chewink was in the woods on November 13.

In the evening we may hear the Barred Owls having a duet and at night our screech owls visit the clearing. Wild geese in large flocks are still going over our preserves during early November, sometimes flying low as the rains and snows drive them down.

Our game birds include the few ducks that chance the season on our little creek. Wild turkeys are scarce, only an occasional bird having been seen over the years during November. But now, a word of mention for the King of Game, who is a challenge to the skill of all sportsmen, our State Game Bird, the ruffed grouse. We find grouse along the creek where they may hang in the hemlocks, or at another time be low along the creek banks. Again these areas may be vacant and our birds may all be among the shrubby growths of the rocky steep. Birds dropped in this type of country may easily be lost to the hunter unless a retriever is present, and in most cases the use of a dog on this boulder ridden mountainside is not practical. We have recorded an instance of a grouse

*(Continued on page 28)*

**Flying squirrels and den in dead aspen snag.**

**Skunk and possum dispute right of way to scrap pail.**

**Pileated woodpecker.**

# ★ ★ ★ CURRENT TOPICS ★ ★ ★

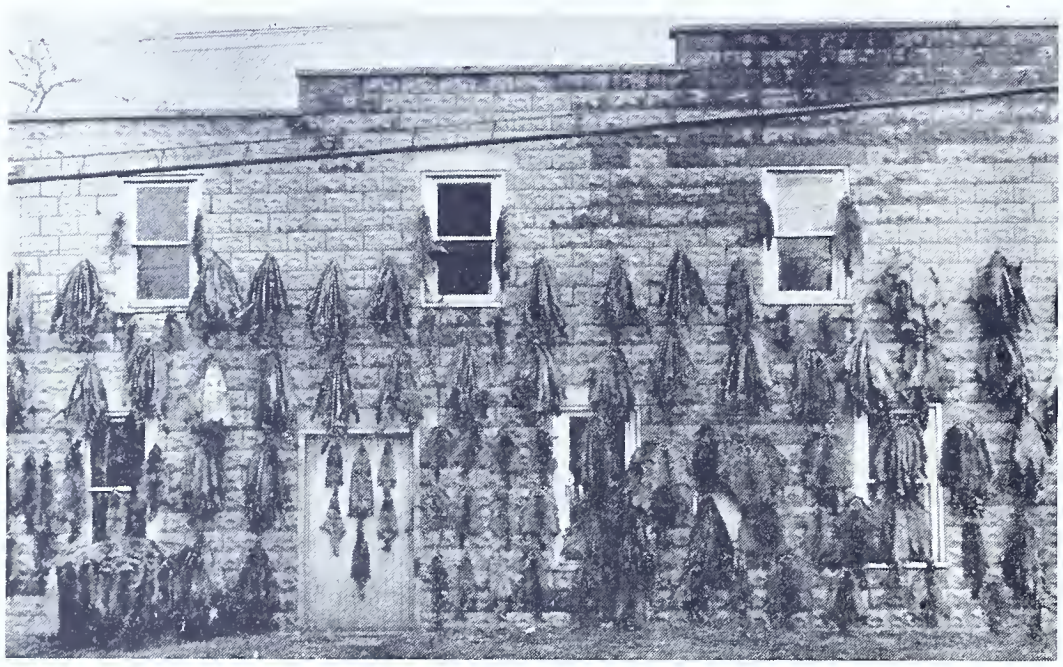


Photo by S. B. West.

A later raccoon season such as that favored and recommended by the Pennsylvania Trappers Association, and which the Commission made effective this year, will result in fewer unprime pelts such as those shown above.

# Hunter-Trapper Cooperation

THE Pennsylvania Trappers' Association appreciates the just regulations which the Game Commission declared for the coming season. It also appreciates the interest the Federation took in the matter. As a result of this mutual interest we hope in the near future to bring about cooperation that will be beneficial to all factions. There is no place for rivalry in a constructive conservation program.

We believe the trapper has helped the game program considerably by controlling predators. Furthermore, fur-bearing animals as a natural resource constitute as large an enterprise as game animals. We believe, too, that the delayed trapping season this fall will be extremely beneficial to both hunters and trappers. The hunter will have the benefit of eight full hunting days before the trapper starts operating, which naturally means no likelihood of dogs getting caught in traps, except possibly in some isolated case of stepping into a trap set for foxes. The trapper will benefit by the delayed season because the fur-bearing animals will be 85% prime, thus eliminating the material waste that has occurred heretofore.

As a director of the Pennsylvania Trappers' Association I want to say that we have asked the Commission to extend the season on skunks in the future to February 10 in order that the trappers can keep the animals under control. January 15 is about the middle or latter end of the hibernation period, and while they would still be a good value, the trapper could take the excess when they start moving.

If sportsmen or property owners find skunks over abundant in any locality they can get in touch with some good trapper in the community and let him relieve the condition.

We hope hunters will cooperate with the trappers after the season opens. Naturally they will have to take a little more precaution with their dogs, but everyone must take a little of the bitter with the sweet, and in order that the trapper can operate in the hunter's interest, by catching foxes, weasels, minks, and so on, it is up to the hunter to lay aside any selfish interest and go at least half way.

We hope the hunter will not molest any traps or fur-bearing animals that may be in traps, as was reported in some instances last season. We also want all trappers to cooperate with their local game protectors. While covering their trap lines they can play a big part in the winter feeding program by building shelters and servicing them. Another way they can assist in predator control is to carry an extra trap or so, and when they find where an owl has caught and partly eaten a rabbit or grouse to use such trap to the best advantage.

Trappers who trap for raccoons should refrain from making sets within 40 to 50 feet of den trees, which will eliminate the possibility of catching a coon hunter's dog. By employing such a practice there is no reason why coons should not be permitted to be taken in traps State-wide. They are still fur-bearers, the same as beavers, muskrats, or foxes, and belong to the people—not to any particular organized group.

Let us all entertain the idea and act on the principle of live and let live, and forget the selfish idea of asking the Game Commission to favor the group to which we belong. Much better sportsmanship can be brought about in this manner.

In conclusion I wish all Pennsylvania hunters and trappers a most prosperous season.—*W. A. Jackson.*

## How the War Will Affect Your Supply of Traps

Steel that would have once been used to make traps has been "drafted." It's being made into tanks . . . planes . . . ships . . . guns . . . all kinds of war materials.

For this reason, the trap manufacturers are finding it hard to get metal. If the present emergency continues in 1943, there may be no traps made next year—except a very limited number for the various Government Agencies.

The Trap Companys of America will do its best to help the trapper. They will continue to make an "all out" effort to furnish repair parts. But even this may become impossible.

### Why It's More Important Than Ever to Take Care of Your Traps

You can see for yourself what lack of steel for traps will mean. The trapper who takes care of his traps will possess useable equipment. The trapper who neglects them may soon have no traps at all.

If you've failed to give your traps the proper care, better begin to do so at once . . . or you may eventually find yourself without equipment!

### Useable Traps From Broken Ones!

Do not throw away traps with a spring, jaw or other part broken. Take the broken trap apart carefully and save everything that's serviceable. You will then have an assembly of parts from which you may be able to construct several useable traps.

### Keep Traps Clean and Free of Rust!

When your season is over, bring in your traps and clean them in a solution made by boiling soft maple bark, butternut bark or black walnut hulls in water. If none of these are available, substitute ordinary willow tops with a few hemlock or balsam boughs. For fox, coyote or wolf trapping, boil traps again before using. This treatment gives traps a deep blue color, keeps them from rusting and provides for quick, powerful action without the use of oil or grease.

### Keep Traps Dry

Nothing will ruin traps more quickly than moisture. Hang all traps in a dry, well ventilated place. Avoid storage in damp cellars or out-buildings.

### Wirehold Impregnated Fiber Trap Tags

No metal tags can be furnished during the national emergency. Water-resistant impregnated fiber tags—declared legal in all states where tags are required—will be supplied. Most states require name and address of owner to be attached to traps.

### Buy From Your Dealer!

As steel is being increasingly difficult to procure for trap manufacture, shortages of even standard numbers and sizes of traps are unavoidable. We are sorry that we cannot supply traps direct from the factory. We sincerely hope your local dealer will be able to meet your requirements. Buy your traps from him.

## *From the Boys in Service*

William C. Grimm, Camp Stewart, Georgia, was advanced from Private First Class to Technician 5th Grade.

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In a letter from Gordon Krieble he said: "Anyway I had to leave my nice barracks and special privileges and move into a colony of Quansett huts (the kind of metal huts they use in Iceland). These huts are located in a sizeable woods patch and that makes it pretty nice. The huts themselves are really nifty. Ten men to a hut isn't at all crowded and their construction is excellent for any type of weather or climate.

"Vireos are quite common and since we get up at 5:30 every morning we are up in time to hear quite a chorus of birds all around us."

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Nicholas M. Ruha, former Commission employe, received word of his appointment as an aviation cadet effective August 28 and reported to Kelly Field August 30.

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We just received word that our Assistant Chef at the Training School, George W. Levis of Brockway, is now Pvt. Levis of Company B, 7th Training Battalion, 2d Platoon, B.I.R.T.C., Fort McClellan, Alabama.

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John Sherman Kelsey, son of Game Protector Claude Kelsey, and a former assistant chef at the Training School, is now a member of Company Y-18 United States Naval Training School, Newport, Rhode Island.

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Private Albert A. Wargo enlisted in the army April 13, 1942, and is with the 311th Bomb Gp., 385th Bomb Sq., Hunter Field, Savannah, Georgia. This is a belated announcement "Al", but we've had a time locating your portrait. Sorry.

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Pvt. Martin L. Shaffer, 9th Company, 1st Prov. Bn., Packenham Station, New Orleans, La. writes as follows:

"The big muddy Mississippi seems to attract a lot of my attention here, evenings. It's nice to watch the ships and boats go by. But, in my opinion, the Loyalsock Creek is far more attractive.

"Mr. Cramer informed me that Bob Lichtenberger finally yielded to Uncle Sam's gentle pleadings. I would appreciate very much to know where Bob was sent. Mr. Cramer, at that writing, did not know where he was located.

## Seals in Danger

Japs on the Pribilof islands, far north of the Aleutians in the Bering sea, would have little strategic importance. The islands are small, without good landing facilities, and too rough-surfaced to afford runways for planes. Seizures already made at Kiska and Attu are more serviceable to the Japs in these respects.

However, the little men from the East can do immense damage to a major American national resource, for these islands constitute the summer home of the great fur seal herd, where the animals mate and the pups are born and learn the ways of the sea. By making even a temporary landing, the enemy could practically wipe out the herd with machine guns and rifles, or even with clubs and knives.

It can be anticipated that the Japs will make such a raid—perhaps have already made it—for they will want all the furs they can steal in preparation for their anticipated attack on the Soviets in Siberia.

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"As a chicken dinner is very near—if we have today as usual—I must close, wishing you the best. Tell the folks 'hello' for me."

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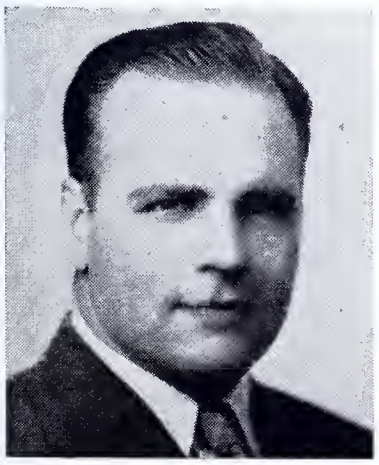
"I was called to Wilkes-Barre for my army exam on the third of April. The army doctors figured me a capable specimen so in I went. I was sent to New Cumberland for three days. I was put on a train for a nice ride that lasted 17 hours, only to find myself in North Carolina.

"For the first week I didn't know whether I was an orphan or a panhandler. They set up a schedule for us that lasted 13 weeks. During this time I became pretty well acquainted to the ways of the army. The conditioning was tough, but thanks to the exercising we had at school, I was in very good condition to start off.

"I worked on the guns for five weeks until they wanted someone to level a floor and do some plumbing. I did the work and after that I was classed as a General Mechanic.

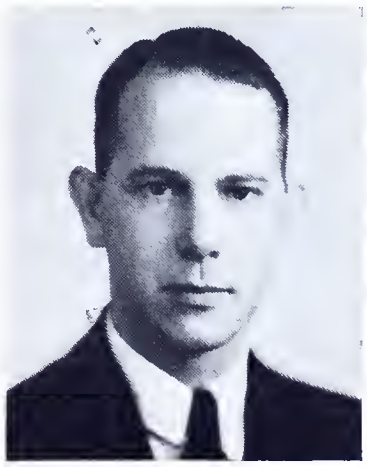
"After my basic training they told me that

*(Continued on page 20)*



**Robert D. Parlaman**

**Albert Wargo**



**Lloyd B. Walsh**

**W. A. Moyer**

# ★ ★ ★ CURRENT TOPICS ★ ★ ★

*In Memoriam*

## ROBERT SNEATH CONKLIN

**To the younger generation of sportsmen the name of Robert S. Conklin who passed away in the Columbia, Pennsylvania, Hospital, on September 26, at the ripe old age of 84 years, may have little significance; but to the veterans of bag and creel and to all those interested in forestry in this Commonwealth it bespeaks one who as a pioneer gave many, many years of his life in the preservation of our wilderness areas. In a sense he was the co-father of many of the earlier programs which formed the foundation for the Pennsylvania forest conservation program because he earned his apprenticeship in this important field as a clerk to Dr. Joseph T. Rothrock, the first Commissioner, better known as the Father of Forestry of Pennsylvania back in 1895. At that time the Commissioner of Forestry headed the Division of Forestry in the Department of Agriculture, and it was not until 1901 that the Legislature created a separate Department of Forestry at which time Dr. Rothrock was continued as Commissioner by Governor Daniel Hartman Hastings, with Mr. Conklin as the Chief Clerk.**

**Through the great confidence of Dr. Rothrock, and upon his recommendation, Mr. Conklin was appointed Deputy Commissioner by Governor Samuel W. Pennypacker on April 1, 1903 and subsequently to Commissioner on May 28, 1904, a position in which he faithfully and tirelessly served until March 10, 1920.**

**In the early part of his career he assisted Dr. Rothrock in founding the State Forestry School in Mont Alto and the Mont Alto Tuberculosis Sanitarium. Under his supervision the acquisition of Pennsylvania's magnificent State forests, now totaling 1,600,000 acres was started in 1898 and by 1920 he had engineered the purchase of more than 1,000,000 acres.**

**Born July 24, 1858 at Mountville, Lancaster County, Mr. Conklin was long respected as a community leader, and held important posts in many civic and fraternal organizations.**

**The younger generation of sportsmen will recall more intimately the son of this pioneer, W. Gard. Conklin, Chief of the Division of Lands of the Pennsylvania Game Commission, who seems to have followed in the foot steps of his father, in that he too is a forester as well as a game conservationist, and has engineered the acquisition of more than 700,000 acres of State Game Lands from 1920 until the present time.**

### "OPENING DAY"

The ragweed and the goldenrod no longer proudly stand,
In summer's last defiance to stern Autumn's ruthless hand;
But bow in sad dejection, in a meadow frosted white,
And yield to the invader who swept down and camped last night.

The hollows are deserted, where of late the robins flocked,
While tall trees, stripped of painted leaves, with squirrels' hoards are stocked.
A quiet countryside sleeps late, beneath the morning sun,
As field and forest respite take now harvesting is done.

A vagrant fleeting warmth pervades the hazy afternoon,
Till o'er the Eastern ridges steals the yellow hunters' moon.
Then in a mountain cabin, that all summer empty lay,
At last a lamp is lighted on the eve of op'ning day.

A fresh night wind awakes and wafts the pungent woodsmoke high;
The wraithlike spirals seem to form a beacon in the sky.
Then kindred spirits gather 'round the wide hearth's crackling blaze,
And quaff again, from friendship's cup, the cheer of by-gone days.

Tomorrow comes, the hunt goes on; then day draws to its close.
The seasons change, and hills are swept by winter's drifting snows.
Another day, and Judas blooms 'neath sunny April skies;
That lamp, long dark, will gleam again when trout are on the rise.

'Tis not the trophy of the chase, of which the hunter dreams,
But of the peace of ageless hills, and song of rippling streams;
He dreams of friends awaitin' in a cabin far away,
And of the lamp that's lighted on the eve of Op'ning day.

By Charles E. Alexander.

## FROM THE BOYS IN SERVICE

*(Continued from page 19)*

I was to stay as an instructor, I worked hard to learn the automatic weapons, and had classes only two weeks when they promoted me to Corporal rank. I enjoy working on the guns, but we have all guns from the Enfield rifle, automatic Browning rifle, 30 and 50 calibre machine guns 37, 75, 105, 155, 240 mm. guns to work on. So I have to use my old bean quite often.

"The food is excellent, I don't have a care in the world, and I get along with everybody."—Corp. Roy W. Trexler, Fort Bragg, North Carolina.

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On September 19, Henry H. Gerhart, Deputy Game Protector, Souderton, a son of Game Protector Ambrose Gerhart, left for the armed forces of the country. Henry was a Deputy for the past 5 years and will be missed by the other officers in his District, as well as by sportsmen in this section. He is stationed at present time at the New Cumberland Reception Center.

Game Protector Gerhart now has two sons in the armed forces, his son David of Quakertown, having enlisted in the Signal Corps as a Second Lieutenant. He is stationed at Camp Crowder, Missouri.

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Mr. Thurman Grove, District Game Protector, Limerick, has also left our midst, and is now employed at Western Penitentiary as a guard.

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Mr. Morris Fisher, District Game Protector, Green Lane, has taken a position as a guard at the Jacobs Air Plant, Pottstown.

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Mr. Earl Shoemaker, District Game Protector, Telford, was appointed Chief of Police of Telford Borough.

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Lieutenant (Dick) Gerstell sent us a clipping from the *Seattle Times* dated September 21, which showed a bunch of soldiers, sailors and civilian fishermen with some of their big king salmon catches. The photograph was taken at West Seattle's boathouse following that city's annual Cracker Derby. Dick's usual luck is apparently with him even though on the western front because the item went on to say that he won the second prize of $25.00. The fish weighed 22 pounds 7 ounces and was caught on a Martin plugfished with 8 ounces of lead. Good going Dick! Ship the next one in dry ice.

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Lost: One black, white and tan beagle hound. Has 1942 Erie County license No. 3366 on her collar. Any information concerning same should be forwarded to Louis Himrod, Waterford, Pa.

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Pvt. Robert E. Latimer, former Commission employe, has been transferred from Fort Bragg, North Carolina, to Company D, 26th TNG Bn., Barracks 2426-T, M.P.R.T.C., Fort Riley, Kansas.

# ★ ★ ★ CURRENT TOPICS ★ ★ ★

Corporal William C. Grimm, Station Hospital, Camp Stewart, Georgia, was recently promoted to the rank of Sergeant.

Stolen: One Remington automatic 12 gauge skeet gun, serial number S513502. Reward if returned to Paul Sensenig, 10 Church St., Ephrata, Pa.

Stolen: One L. C. Smith Olympic single barrel trap gun No. S1031190. Any information concerning same should be forwarded to John McIntyre, Byrnesville, Centralia, Pa.

## A Hunter and His Dog

At dawn when Autumn fills the air,
And dew falls from the sky;
The animals run here and there
And birds begin to fly.

A hunter whistles for his dog
And then they start the day,
By tramping over briar and log
In hopes of finding prey.

The dog has big soft eyes of brown
That watch his owner's face.
He wouldn't want to let him down,
So sets his master's pace.

He tries so very hard to please,
To hear a friendly word.
His tender nostrils sniff the breeze
And get the scent of bird.

He stands on point so staunch and still
To let his master know;
That birds are just beyond the hill,
That's how he tells him so.

The hunter shoots and kills his game;
The dog bounds through the leaves,
His master's proud and calls his name
And then the dog retrieves.

He lays the bird down at his feet
And then he wags his tail;
His master thinks he can't be beat
When finding his first quail.

He looks into his master's face
With eyes that seem to say,
"I'll bet no other dog could trace
A bird in such a way."

—Madeline Lois Hartman

We know a fellow who leads the life of Reilly five days of the week. Mrs. Reilly's husband comes home for the week-ends.
—*Typo Graphic*

A lot of fellows would "love to find a job," and a lot of them would be willing to love whether they found a job or not.
—*Typo Graphic*

PENNSYLVANIA GAME COMMISSION
PRELIMINARY 1941 GAME-KILL REPORT

| Species | Wt. of Ea. | Season of 1941 (Preliminary Report*) Number | Season of 1941 (Preliminary Report*) Weight | Season of 1940 (Final Report†) Number | Season of 1940 (Final Report†) Weight |
|---|---|---|---|---|---|
| | | | Lbs. | | Lbs. |
| Deer, Legal Antlered | 115 lbs. | 19,100 | 2,196,500 | 40,995 | 4,714,425 |
| Deer, Legal Antlerless | 80 lbs. | closed | ..... | 145,580 | 11,646,400 |
| Total Deer and Weight | | 19,100 | 2,196,500 | 186,575 | 16,360,825 |
| Bears | 175 lbs. | 567 | 99,225 | 524 | 91,700 |
| Rabbits | 1¾ lbs. | 3,545,615 | 6,204,826 | 3,266,537 | 5,716,440 |
| Hares (Snowshoes) | 3 lbs. | closed | ..... | closed | ..... |
| Squirrels | 1 lbs. | 929,081 | 929,081 | 1,044,784 | 1,044,784 |
| Raccoons | 10 lbs. | 43,889 | 438,890 | 40,802 | 408,020 |
| Wild Turkeys | 10 lbs. | 3,894 | 38,940 | 5,218 | 52,180 |
| Ruffed Grouse | 1 1/3 lbs. | 186,696 | 248,928 | 221,474 | 295,299 |
| Ringneck Pheasants | 2¾ lbs. | 532,589 | 1,464,620 | 459,071 | 1,262,445 |
| Quail | 6 oz. | 70,427 | 26,410 | 74,808 | 28,053 |
| Woodcock | 6 oz. | 29,224 | 10,959 | 29,087 | 10,908 |
| Wilson's Snipe, Gallinules and Rails | 4 oz. | 4,142 | 1,035 | 5,091 | 1,272 |
| Grackles (Blackbirds) | 2½ oz. | 46,316 | 7,237 | 43,204 | 6,751 |
| Wild Waterfowl | 2½ lbs. | 55,569 | 138,922 | 52,060 | 130,150 |
| Woodchucks | 6 lbs. | 195,968 | 1,175,808 | 190,735 | 1,144,410 |
| Total Number of Species and Weight | | 5,663,077 | 12,981,384 | 5,619,970 | 26,553,237 |
| Reduced to Tons Equals | | | 6,441 Tons | | 13,277 Tons |

* Reports from 96% of the 686,915 licensees.
† Reports from 98½ of the 678,688 licensees.
SPECIAL NOTE: When all the 1941 Game-kill Reports received in the final checkup have been tabulated it is believed that approximately 97% of the hunters will have filed their reports. The final tabulation will be published in a later issue of the Pennsylvania Game News.

Ode to a bride—The groom may be the light of your life, but wait until your light starts going out.—*Typo Graphic*

When an irresistible force meets an immovable body, usually a good lawyer can put skids under both.—*Typo Graphic*

Call them "The Good Old Times" if you wish, but most of us were not able to afford an automobile then.—*Typo Graphic*

Before judging a man by his associates, remember that Judas Iscariot traveled in good company.—*Typo Graphic*

"My wife doesn't know I went hunting!"

# ◆◆◆◆◆◆ MARCHING FORWARD ◆◆◆◆◆◆

Photo by C. Gordon Krieble.

**Farm-game projects provide excellent shooting for both sportsmen and farmers.**

*(Continued from page 3)*

biennium. This was a gain of 79 projects comprising more than 22,000 acres over the previous two-year period.

**Dog Training Preserves**

Two new preserves for training hunting dogs, and upon which to hold field trials, were established—one in Erie County and one in Washington County, bringing the total of such areas to six.

**Game Refuges**

During the biennium 54 new Primary Refuges comprising 5,471 acres and 8 new Auxiliary refuges comprising 937 acres were added. Five Primary Refuges were reduced in size and 11 other primary and auxiliary refuges were abandoned.

**Land Management**

The problem of managing not only the refuges but the State game lands as a whole, including the mowing of boundary lines, fire trails, the construction of roads, the maintenance of buildings, telephone lines, the planting of food-bearing trees and shrubs, and the patrolling of the refuges during the hunting season, is a tremendous one. There are now 47 land management groups, each in charge of a Land Management Game Protector who handles the field work in connection with the refuges, State game lands, propagation areas, and special preserves within the group assigned him. New groups will no doubt have to be added in the near future to insure proper supervision.

The refuges, propagating areas and special preserves alone require the annual maintenance of more than 1,650 miles of boundary line. There are also approximately 3,500 miles of outside State game lands boundaries which must be maintained. More than 1,100 miles of trails are also maintained for forest fire protection, and to make the lands more accessible for better administration, as well as approximately 750 miles of roads which can be traveled at least part of the year. Seventy-five miles of fire trails and 45 miles of roads were constructed during the past year.

**Federal Aid**

The WPA, NYA and CCC helped tremendously in furthering the development program on State game lands and refuges. WPA, for instance, furnished a total of more than 600,000 man-days of labor at a cost to the Federal Government of almost $1,900,000. The NYA provided $75,000 for projects on lands controlled by the Commission, and approximately $16,000 was paid to relief recipients by the Department of Public Assistance for work on State game lands. Unfortunately the CCC program was curtailed and the camps located on two of the larger game land tracts were abandoned in July 1941. During their existence, however, they continued the same valuable improvement program which had been carried on by them during the past eight years.

Most of the work done by Federal agencies included planting and transplanting of trees and shrubs, building feeding shelters, erecting fences, planting food plots, pruning apple trees, building roads, constructing trails, repairing springs, establishing refuges, building cribs for storing winter grain, quarrying and burning limestone, improving streams, cutting out and marking boundary lines, etc.

WPA and NYA projects together planted approximately 2,500,000 evergreen seedlings, mostly in clumps or strips, for wildlife cover and to provide a future timber crop. Over 1,300,000 game food-producing trees, shrubs and vines were also planted, and more than 60,000 transplanted. More than 25,000 feeding shelters were constructed, 65 corncribs were built, and 280 springs and water holes were walled up to make water more accessible for forest fire fighting and for hunters.

Over 7500 acres of release cuttings were made to remove competitive growth from around game food-producing plants such as crabapple, hawthorn, wild grape, dogwood, blackberry, birch, apple, virburnum, and other plants which are helpful in furnishing wildlife with a food supply.

Over 40,000 apple trees were pruned, and during each winter of the biennium more than 200 tons of apple pomace were gathered at cider mills by field employes of the Commission and placed in the woods for wildlife.

**State Redistricted**

One of the most important single undertakings of the Commission during the biennium was a field redistricting plan, put into effect on June 1, 1941, after several years of intensive study and planning.

Under this plan it is possible to more nearly equalize the administrative responsibilities of the entire field organization, thereby insuring better and more uniform service to the sportsmen and the general public. It of necessity involved a general disregard for county lines and the utilization of highways, streams, mountain crests, and other natural geographical boundaries instead. Under the new set-up violations can be reported to any nearby Game Protector with the assurance that they will be taken care of promptly.

So far this forward step has worked admirably, and the few sportsmen who at first doubted its wisdom soon realized that it has guaranteed economy and better efficiency in field management; that it has permitted more frequent patrols and better law enforcement; and that their interests in general are being served better than ever before.

**Law Enforcement**

That the sportsmen and the public generally observed the law better was indicated by a drop of almost 2,000 prosecutions under the previous biennium, only 7,506 have been prosecuted compared

Photo by W. L. R. Drake.

**Sportsmen and the public generally observe the law. Here a hunter is checking his big game tag.**

# MARCHING FORWARD

with 9,489 during the 1939-40 biennium. Penalties collected amounted to $127,895.90.

Notwithstanding the general improvement in law observance, however, it was necessary for the Commission to revoke 647 licenses, including 147 as the result of Referee hearings in hunting accident cases, destruction of property, assaulting land-owners, or other specified acts of carelessness and indifference. The licenses were revoked from one to five years.

### Game Feeding

Although game feeding was necessary as always, the Commission did not need to devote as much time, money or effort to this activity as in previous years because the winters were not extremely severe. Nevertheless an extensive program was carried on by the field officers assisted by farmers, Boy Scouts, and other interested individuals.

### Deer Damage

It was not necessary for farmers and orchardists to kill as many deer for damage as they did in previous years. The deer herd has been more effectively controlled by antlerless seasons at appropriate times so that the farmer has been considerably relieved of depredations. Only 2,988 deer were killed to protect property as compared with 5,409 during 1939-40. They were killed in 46 counties, and over 90% of them were retained for food. Although an appropriation of $10,000,000 a year is available for deer-proof fences, only slightly over $5,000 was used for this purpose during the biennium.

### Bear Damage

Bear damage also decreased, therefore it was necessary to expend only $1,757.47 for this purpose. This amount settled a total of 94 claims for the killing of 111 sheep, 99 beehives, 1 cow, 1 goat and 4 hogs.

### Training

The third student officers' class was held at the Training School during the biennium from which 24 officers graduated on February 28, 1942. These men were given final examinations in 27 different subjects and no one had a grade less than 75%. The class was undoubtedly the best trained group of men yet to graduate from the school. It had the advantage of a three weeks longer course, and the school staff, with its previous experience, was able to provide a better course of instruction. Furthermore, in the group were a number of men with college training in wildlife management work. By the end of the fiscal year seven of these young men had already either enlisted or were called into military service.

The Commission also inaugurated a program whereby field officers would have an opportunity to compete in an examination to take a proposed course of instruction for prospective Field Division Supervisors. Any Field Officer having completed 4 or more years of satisfactory service on or before May 31, 1940 was eligible to compete for the course. As a result a competitive examination on six subjects was given to 20 men on June 27, 1940, one from each of the seven Field Divisions. Following the examination six were eligible to take the course for prospective Supervisors and subsequently entered into a series of training periods under the direction of the various supervisors.

Photo by C. Gordon Krieble.
**The Third Student Officers training class.**

Photo by Leo A. Luttringer, Jr.
**Hundreds of sportsmen and sportswomen participate in field trials annually.**

### Propagation

Production at the game farms was stepped up considerably. Over 70,000 mature and 4,500 fifteen-week old pheasants were released; over 25,000 mature quail were liberated; and more than 3,000 six-week old quail chicks shipped to sportsmen; 2,200 Hungarian partridges were reared and released at maturity; and over 2,800 adult wild turkeys were liberated.

At the close of the two-year period the total number of wild turkey propagating areas had been increased to 21. As in the past, a limited number of these were annually used for egg collecting, the remainder for stocking purposes.

### Game Purchases

Somewhat smaller game purchases were made as compared to the previous biennium due to the fact that it was almost impossible to secure rabbits because of poor trapping conditions in the West and lack of transportation facilities. Notwithstanding, over 39,000 cottontails, 26,000 ringnecks, 12,000 quail and 2,000 Hungarian partridges were purchased and released.

### Live Trapping

A large scale live trapping and redistribution program was conducted as in previous years. Unusually favorable conditions prevailed during the winter of 1940-41 allowing for a record transfer of wild game. But a shortage of manpower, together with a naturally poor rabbit year, resulted in a lower take during 1941-42, although the program was nonetheless successful. Altogether over 53,000 cottontails, 250 raccoons, 1,000 gray squirrels, 50 woodchucks, and 6,600 ringnecks were thus removed from areas where no hunting is permitted and stocked on lands where public shooting is allowed.

### Research

Numerous important research programs were conducted, some new and others continuations of projects started previously. These projects fall into three separate classes, namely (a) those financed entirely by the Commission, which include physiological studies, controlled shooting areas, ecological studies and the development of pheasant sexing techniques; (b) those financed in part (75%) by Federal funds, including fur-bearing animal studies; controlled

*(Continued on page 24)*

# MARCHING FORWARD

Photo by C. Gordon Krieble.

**Thousands of sportsmen and farmers view the Commission's exhibits, such as the above at the State Farm Show, annually.**

deer breeding experiments, general ecological investigations and forest-wildlife relations; and (c) those jointly financed by the Pennsylvania State College, the American Wildlife Institute, the U. S. Fish and Wildlife Service, and the Game Commission. Among the active projects in this unit are those concerned with game bird propagation, quail management, life history and ecology of the wild turkey and black bear, weasel population, silvicultural practices affecting deer foods, and the food habits of game birds.

### Public Information

More demands were made upon the Commission's educational services than ever before, consequently it was necessary to increase this program considerably, especially the visual part of it. As a result eight new motion pictures in color were prepared and distributed, most of them 1600 ft. reels. Subjects included Wildlife Conservation in Pennsylvania, Pennsylvania's Large Game Program, Pennsylvania's Small Game Program, Pennsylvania Bird-Life; Wings Skyward (a reel on the Pymatuning Waterfowl Sanctuary); Work and Play, (a reel on sportsmen's activities); and Fox Hunting in Southeastern Pennsylvania. Supplementary pictures were purchased as follows: Once Upon a Time, (a cartoon on conservation by "Ding" Darling); How Birds Feed Their Young; and A Heritage We Guard, (a film devoted to soil conservation and wildlife).

Upwards of 17,000 feet of color film were exposed to produce the reels the Commission prepared, and 76,000 feet of duplications were required in order to equip each Field Division Supervisor with a full complement of films.

However, with all this material at hand it was impossible to meet the demand for both lectures and pictures. Thousands of meetings were attended by members of the Commission, the Executive Staff and the Field Personnel, and thousands of sportsmen, farmers and school children were contacted.

Other educational activities included the preparation of the following new educational leaflets: Attracting Birds; A Conservation Program for Women's Organizations; The Black Bear; The Beaver; The Ringneck Pheasant; The White-tailed Deer; the preparation and distribution of thousands of colored posters on safety first; game protection; song bird protection; winter feeding; wildlife management; forest fire prevention, etc.; an extensive newspaper and radio campaign; and participation in several major and numerous smaller exhibits.

Of outstanding importance was an effort to promote conservation education in the State Teachers Colleges and public schools, in which the ground work was laid through the cooperative efforts of the Pennsylvania Federation of Sportsmen's Clubs and numerous Civic organizations including the Women's and Garden Clubs.

### Predator Control

Bounty payments made during the two year period amounted to $127,024. This sum was paid for 16,149 gray foxes; 11,197 red foxes; 34,056 weasels and 60 goshawks, and included 25,105 claims. A careful check is maintained at all times to detect fraudulent bounty claims.

During the second year of the biennium there was a noticeable decrease in the number of predators taken due largely to the fact that many trappers secured employment in industrial plants.

### Fur-bearing Animals

Reports of fur dealers also showed that fewer fur-bearing animals generally were taken during the second year of the biennium, nevertheless for the entire two-year period more were taken than during the previous biennium. All told there were 1,716,925 fur-bearers of all kinds taken for which trappers received $1,690,769.71.

The following tabulation shows the comparative take and value:

| | 1939-1940 | | 1940-1941 | |
|---|---|---|---|---|
| Species | Number | Value | Number | Value |
| Muskrat | 407,676 | $426,395.55 | 373,294 | $488,098.05 |
| Skunk | 321,893 | 204,970.50 | 255,439 | 195,955.78 |
| Mink | 9,034 | 48,099.18 | 6,736 | 39,407.51 |
| Opossum | 110,479 | 22,198.13 | 70,831 | 15,276.07 |
| Beaver | 702 | 9,512.14 | 1,195 | 28,097.84 |
| Otter | 18 | 174.00 | 15 | 111.00 |
| Raccoon | 33,095 | 62,229.45 | 34,639 | 73,711.46 |
| Weasel | 36,581 | 8,886.26 | 22,363 | 8,272.39 |
| Red Fox | 6,955 | 15,435.53 | 7,548 | 15,779.63 |
| Gray Fox | 10,519 | 16,385.81 | 7,846 | 11,748.78 |
| Wild Cat | 12 | 14.65 | 9 | 10.00 |
| Totals | 937,055 | $814,301.20 | 779,870 | $876,468.51 |

### Hunting Licenses

The seasons of 1940 and 1941 both proved to be banner years in the issuance of hunting licenses. The 1941 season marked the largest issuance of resident licenses in the Commission's history. In 1940, 666,420 resident and 12,748 non-resident licenses were issued, and in 1941 preliminary figures at the end of the biennium showed that 676,730 resident and 10,785 non-resident licenses had been sold.

### Hunting Accidents

The Commission, continuing its established policy, used every means at its command including the press, radio, posters, the summary issued with each and every hunting license, etc., to reduce accidents. During the two-year period (1940 and 1941) there were 79 fatal and 790 non-fatal accidents. On the basis of an eighteen-year summary (1924-1941, inclusive), the average number of fatal hunting accidents per year was 46. During this biennium the yearly average was 39½.

This decrease is commendable indeed, and more especially so when the average annual license sale of 677,997 for the past two years is compared with the average annual sale of only 568,196 during the eighteen-year period. In other words, during the biennium under discussion there was an average of one fatal accident for every 17,164 licensed hunters, whereas during the past eighteen-years there was one fatal accident for every 12,352 licensed hunters. While this achievement is noteworthy, there are still too many needless accidents. The Commission will not be satisfied and neither should any sportsman be, until it is possible to create a "safe hunting consciousness" on the part of all hunters who go afield. To accomplish this the Commission must of necessity

# MARCHING FORWARD

impose maximum penalties and license revocation periods upon those who have no regard for the safety of others, not to mention dependents.

### Game Kill

The game kill, while not quite as large on the whole as that of the previous biennium, nevertheless was highly satisfactory, 195,000 tons having been taken. All in all the number of small and large game animals that fell to the unerring aim of Keystone marksmen were, in round numbers, 1,000 bears; 59,000 buck deer; 145,000 antlerless deer; 6,800,000 rabbits; 1,900,000 squirrels; 84,000 raccoons; 9,100 wild turkeys; 407,000 grouse; 980,000 pheasants; 144,000 quail; 58,000 woodcock; 9,200 Wilson's snipe, gallinules and rails; 89,000 blackbirds; 107,000 wild waterfowl; and 386,000 woodchucks—a total of 11,265,000 pieces of game. This take was based on 98½ percent of the licensed hunters in 1940 and 95 percent in 1941.

### Special Permits

A great many special permits were issued during the past two years as follows: 356 taxidermists; 20 ferret owners; 4 ferret breeders; 382 propagating; 152 field trial; 6 retriever trials; 26 collecting; 379 fur farming; 828 fur dealers; 90 fur dealers employes; 36 regulated shooting grounds; 70 roadside manageries; 38 fox hunting clubs; 162 archery preserves and 30 special dog training.

### Accounting

Time and space will permit the inclusion of only a relatively small part of the financial operation of the Commission. This report, though detailed and important, is supported by charts and tabulations much too complicated to include in this summary. Nevertheless among them are certain figures which should be made public before the detailed report is printed namely:

During the first year the sum of $1,658,738.77 was credited to the Game Fund, and during the second year the revenue amounted to $1,650,988.61, or a total of $3,309,727.38 for the biennium—an all time record.

The main contributing factors responsible for the substantial increase in revenue include: (a) the sale of many more licenses than ever before, and (b) Federal Aid amounting to $160,187.02 received during the two-year period, or $125,362.28 more than the previous biennium when such assistance was first made available to the several states.

During the biennium the Commission continued its long established policy with reference to keeping new projects well within available funds. In addition to the above safeguard, the Commission is always cautious in allocating additional revenues, otherwise too much might go into new projects which would tend to decrease the annual operating expenses beyond the amount of money available for such purposes. When all these facts are considered, sportsmen will understand why new programs cannot be expanded as extensively and as rapidly as may be desired.

### War Time Reserve

As early as June 1, 1941 the Commission felt that a "Special Reserve" should be created for use during the war to compensate for anticipated loss of revenue due to decreased license sales. Accordingly, when the 1941-42 budget was established $107,200 was set aside as a special reserve, which was increased to $147,825 on December 1, 1941. On June 1, 1942 this was further increased to $300,000. This amount is over and above the regular "Operating Reserve" of $346,478.08.

Furthermore, it is obvious that part of this "War Time Reserve" might be required for the first or second post-war years for capital expenditures (major equipment, building supplies, etc.), which naturally will be greater due to pyramiding these needed items. Because of the all-time record license sales during 1940 and 1941, it was possible to create this reserve and still have sufficient funds available to carry on the normal functions of the Commission.

Photo by William Grimm.

**Around such areas as the Commission's Waterfowl Sanctuary at the Pymatuning, nests the American Bittern and many other shore birds.**

# THE "SPORTMEN'S MAP" SOON AVAILABLE

A long felt want of sportsmen is about to be realized, unless an unexpected obstacle is encountered because of the war. An up-to-date "Sportsmen's Map" of the State, showing the location of the Commission's land management areas, as well as State Forests, towns, roads, etc., will soon be available for the use of sportsmen. The need of such a map has been evident for a great many years, but not until now has it been possible to construct one which would fulfill its many requirements.

The map will be reproduced on good quality paper, 23″ by 36″, about the same size as the Department of Highway's road map. It will be in six colors, and ornamented with a border depicting game and fur bearing animals resident of the State. The pen and ink sketch for the border was drawn by Fred Everett, the noted wildlife artist.

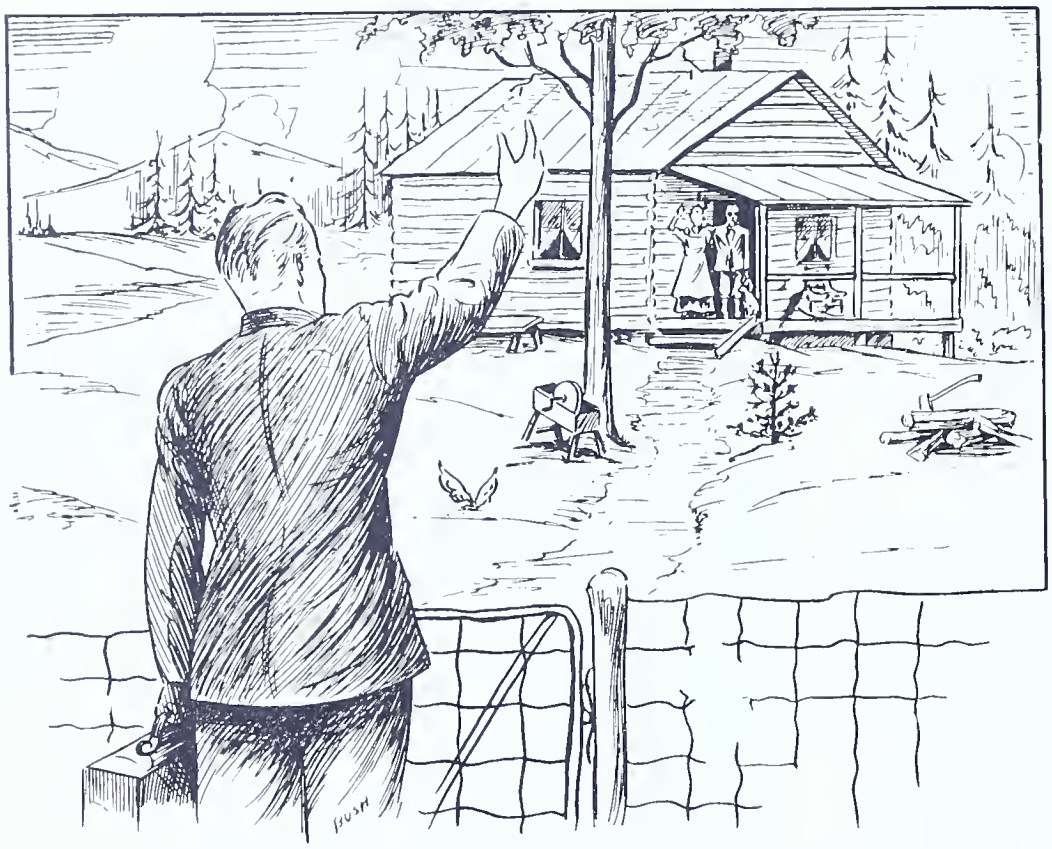
The more than 700,000 acres of State Game Lands will be shown in an orange color; State Forests in green; Auxiliary Game Refuge Projects, Game Farms and Game Propagation Areas in yellow; Primary Game Refuges in red; and the background of the border a light shade of green. The larger streams of the State and their names, as well as County names, will be blue; Roads and most of the lettering will be black.

Preparation for the new map was started about two years ago as a WPA Art Project in the drafting room of the Division of Lands, and was recently completed by the Commission's regularly employed draftsmen.

The first order is for 25,000 copies, and unless an obstacle in printing is encountered the map should be available for distribution by December 1st. A supply will then be furnished each Game Protector for distribution to the best advantage.

# The Crippled Deer of Mosey Wood

*Continued from page 9*



As he turned back he smiled, "Fix that gate till I get back."

muscled buck with large wild eyes and a defiant toss of his head. "It's the elk Old Grat was talking about!" Jeth told himself silently. "He's chasing those deer. Sure thing, I'm near Hayes Creek!"

He was silently cursing this buck, forgetting all else for the moment, and then abruptly another great head hove into view. Jeth almost cried out in his surprise. Old Cripple!

Oh, there could be no mistake about it. Never. He would have known this magnificent animal anywhere. Never had the Pocono mountains given birth to a prouder, finer buck. And then, when he walked, yes, there was the tell-tale limp!

Never had he seen Old Cripple in this section of the mountains before. He had never been known to favor it. Jeth could not believe it. But there he was.

For a moment, Jeth did not see that he was about to witness a most unusual thing. It was not until the elk and Old Cripple faced each other, antlers down and eyes blazing, that he realized. And even as he realized what was to come, the battle began. It was Old Cripple who charged, crashing into the wide tough horns of the greater-sized elk.

It was a battle of crashing horns, of heaving bodies, of the crashing of brush and spray of dust, of bellowing and snorts and whistles of pain. The large bodies moved about so quickly, writhing and twisting and lunging, that Jeth could not tell for some time how Old Cripple was faring. And it was Old Cripple in whom he was interested. He feared that it was the last of the old buck. It was madness to attack this huge and powerful elk. It was madness, yes—but a great and wonderful madness. Old Cripple, he knew, was not fighting for himself, even though his own life was at stake. He was fighting the battle of every deer whose happiness had been shattered by this blood-thirsty, fight-mad stranger.

Old Cripple was an experienced fighter. Ere long, Jeth perceived that the old buck stood on the crest of a tiny knoll, fighting downhill, using the added advantage of the slope to force his opponent backward. And then, suddenly, the impossible thing happened. The elk's balance was disturbed. Like a flash, Old Cripple's horns drove home on the side of the neck.

It was with all his power that he struck. Like a veteran prizefighter he had waited for his chance, and like a veteran prizefighter he had seized that chance with all the strength he could muster. His horns ripped a great gash in the side of the elk's head. In an instant this gash filled with blood that poured forth as if from the mouth of a fountain.

It seemed as if this great gash at last aroused the full powers of the elk. He charged, forcing Old Cripple backwards as a man might force a boy. But Old Cripple seemed to sense that he had gained a great advantage, and instead of meeting the attack he backed away, avoiding the full impact of the elk's mad lunges. He remained on the defensive now, as if some sixth sense told him that his game now was only to wait. Blood gushed from the throat of the elk, dripping from his flanks like a ruby stream. Jeth gasped to himself, "Old Cripple has won! He has dared and he has won!"

And Jeth's words were true. Each charge of the great elk was weaker than the last. The wild eyes became glazed. At last the elk only stood, facing his alert and ready adversary, as if unable to believe. He did not charge again. He turned and wandered slowly into the forest. Old Cripple did not charge, but he followed slowly.

Jeth watched, spell-bound. Not once did the elk cease in his journey. He tottered slowly across Hayes Creek, labored up the ridge toward the west. Old Cripple followed until the elk has crossed the ridge, then he turned and started down the valley. He moved very slowly, for he, too, was weak.

But Jeth Farmer saw more than a weak and battle-scarred buck wandering down that valley. He saw more than the lesser bucks and does who waited in the laurel thicket. He saw instead armies, nations, millions of oppressors and millions of weaker people. He saw something very clearly now. He saw that the safety and happiness of the just weak was the responsibility of the just strong. He could see the oppressed people now—lean, haggard, weary of limb and weak with starvation, stumbling blindly about in the shambles of their homes, holding on only to their unquenchable faith in their stronger brothers. "I see now," he said. "Now, I have something to grip to, and I am ready to go."

That evening he made his farewell. He played one last game of retrieve with Weary, then laid one last affectionate hand on the faithful dog's head. He turned one last time to the mountain, sleeping now in the gathering dusk. Then he said, "So long, Manda. Thanks for all you have done. I'll see you again when the world is free again. So long, Grat, old friend."

"So long, Jeth. Take care of yourself."

"Teach them Germans how a Pocono mountaineer brings down his game, Jeth."

He struggled with the rusty gate. He struggled and he struggled. Finally it flew open, and he stepped outside. As he turned back he smiled. "Fix that gate till I get back, Grat."

But this time the old fellow had stretched his length on the rickety porch. "Manda," he said, "I don't see no reason under the sun why you can't get around to that tomorrow. I ain't got no time to fiddle around with no gate."

And Jeth turned away, smiling, taking with him the picture of Old Grat lounging peacefully on his porch. And his soul was now as completely at rest as the body of the old mountaineer.

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Ducks unlimited urges sportsmen to save all down and small body feathers of wild ducks and geese bagged this hunting season as a reserve against a growing scarcity of commercial eiderdown.

The down, normally imported, is used to line high altitude aviators' garments, sleeping bags for troops in Alaska, etc. Imports now have been curtailed by the war and all available supplies "frozen" by WPB order.

It is estimated that the seasonal bag of waterfowl would provide enough down and feathers for 300,000 aviators' pants and parkas, more than 150,000 sleeping bags or 500,000 sub-zero down jackets for service men and civilian alike.

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The difference between a bachelor and a married man is that when a bachelor walks the floor with a baby he's dancing.

—*Typo Graphic*

# But You Can Cure a Game Hog

*Continued from page 12*

"Sam swung the pump up quickly . . . ."

Again it happened before I realized fully what was going on. This time Jim shot twice and fully eight fat quail lay struggling their last on the woods floor. One crippled away on a broken leg.

I hadn't noticed the presence of another person during the whole incident, but he was there, old Sam Yancey, standing out there in the woods at his feed pen—the pen that he had used to pull his precious yaupon bevy through a hard season. His eyes were wide and for a minute Sam just stood there and looked.

Then he started for Jim. His face was contorted with anger. Words hissed through trembling lips.

"Kill my quail on the ground, will you! Didn't give 'em a chance! Nearly wiped out the whole bevy—an' after all my hours of nursing them through the freeze!" he started toward Jim. "Man, I'm going to tear you apart. Maybe I ought to kill you. . . ."

Jim stared wide-eyed at the huge form coming toward him, he gasped at the powerful, hard set mouth—he saw the wild fury in those eyes and the big, knotted fist. That was enough for Jim. Guilt heavy on a mind that had just begun to realize what he had done, Jim turned tail and ran with the speed of a hi-lifed donkey down the trail.

He tripped and fell once, losing his gun, but bounded to his feet again in record time and kept going. Sam followed close behind, fuming and swearing. And then he saw Jim's gun. . . .

I rushed forward to stop him. But I was too late. Sam swung the pump up quickly and let go. And then he kept working the slide and pulling the trigger. Lucky for Jim he had the magazine plugged and there was only one shell left in his gun. But that one shot brought a yelp of pain from Jim, and he added fully ten knots to what I thought was already his top speed.

I didn't see Jim for over a week. I dropped by to take his gun which he had abandoned so hurriedly on that fateful afternoon. He hadn't needed it because the season had closed a few days after our memorable hunt.

Jim treated me cordially, thanked me for bringing back his gun, and chatted on as if nothing whatsoever had happened. We just never mentioned the little shot-stinging incident at all.

That was three years ago. I have hunted regularly with Jim ever since. Never once has he shot at a quail on the ground. His former hunting companions call him up now and then for a hunt, and it seems he's taken a new lease on life. During all that time neither of us ever spoke of the little incident between Jim and Sam.

"That one shot brought a yelp of pain from Jim."

"Then one day over a cup of coffee Jim smiled and spoke out so flatly that it almost startled me."

Then one day over a cup of coffee Jim smiled a little and spoke out so flatly that it almost startled me.

"I'm glad Sam broke me of shooting quail on the ground. You know, when I looked back that day and saw him pick up my gun with me only about thirty yards ahead, I never had such a helpless feeling in my life—I didn't have a chance. I knew those small bird shot wouldn't kill me, but nevertheless I had a feeling of stark terror."

I just sat there, mouth hanging open, speechless, listening deeply. Jim continued.

"Now when a bevy of quail jumps up and spreads out in front of me, I always have that same helpless feeling. I sort of put myself in their place, I guess. That old urge to slay them is there, of course, but another feeling is stronger—guess I know too well how it feels to get lead in the tail without a chance to dodge it. . . ."

# SPORTSMEN'S QUERIES

### HUNTING SEASON NEXT YEAR?

Q. *A rumor is going around that there is not going to be a hunting season next year. I would like to know if this rumor is true.—Anon.*

A. Whether there will be a hunting season next year (1943), no person could possibly foresee at this time. That would depend entirely upon future developments, the nature of which no one can accurately predict now. There is at this writing (September 1942) every reason to believe that the 1942 hunting seasons as announced will be in full force and effect.

### POLICEMEN CARRYING SIDEARMS WHILE HUNTING

Q. *Are city, borough and township police required to get a permit to carry a sidearm when hunting?—Anon.*

A. No. All law enforcement officers are exempt from the permit requirements of the Firearms Act of 1931, now a part of the Penal Code of 1939.

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"On August 14 I observed a large copperhead snake which Mr. Chrise of Fairchance, Fayette County, had killed. I noted that the reptile appeared extra large in diameter, so I opened it and found it to contain 17 unborn snakes."—Game Protector Lester E. Sheaffer, District 14, Division "G".

"A pair of Bald Eagles which have frequented the Delaware Valley from Dingmans Ferry to Milford for the past few years has been reinforced by two more pairs. One pair has been observed between Matamoras and Mill Rift and another in the vicinity of Pecks Lake and Hemlock Pond. It appears that this species is on the increase."—Game Protector John H. Lohmann, District 7, Division "B".

---

In keeping with the current rage, there's the miniature cocktail. One drink and in a miniature out.—*Typo Graphic*

---

Before repeating anything "a little bird" has told you, better make sure it was not a cuckoo.—*Typo Graphic*

# Pennsylvania Wild Turkey Food Habits

Photo by Henry H. Schell.

Wild Toms at Turkey Farm.

that grapes and acorns consisted of 33.48 percent of the total volume. There were 250 different items listed as food.

Dalke, Clark, and Korschgen (1942) analyzed 3,244 turkey droppings in Missouri. Their results were based on frequency percent; therefore, it was difficult to compare results directly. However, a high degree of utilization was shown for grass leaves and seeds, insects, acorns, flowering dogwood, and wild grape. The summary stated that trends in seasonal food habits were shown to correspond with the availability of the different classes of food.

Bennett and English (1941) reported on 14 turkey crops taken in Pennsylvania during November. Cultivated grains led the list, composing 62.6 percent of the total volume. The high percentage of the cultivated grains may have been due to a number of reasons, as follows: (1) The small number of crops, (2) the locality where the crops were collected, (3) a lack of natural food, or (4) the practice of baiting turkeys. Acorns, grasses, wild grapes, panicum grass, and wild cherry composed 27.0 percent of the total volume.

Good and Webb (1940) analyzed 116 crops taken from March 15 to April 15 in Alabama in three different years. The major food items were as follows: Oaks, 40.13 percent of the total volume; sedges and grasses, 17.06 percent; black gum and dogwood, 3.16 percent; and animal matter, 11.17 percent.

**Summary**

1. Dropping analysis was valuable in that it showed the major foods utilized by wild turkeys.
2. The analysis of droppings allowed one to study the seasonal food habits of a game bird.
3. Droppings should be gathered from as many flocks in as many different types of habitat as possible.
4. The food habits of turkeys in any particular locality were governed by the availability, desirability, and abundance of any particular food.
5. Natural foods that were taken all four seasons of the year were as follows: (1) Acorns, (2) grasses and sedges, (3) wild grapes, (4) dogwood, (5) wild cherry, and (6) snails.
6. Acorns and wild grape were the two main winter foods.
7. Acorns, grasses, and sedges constituted the important spring foods.
8. Grasses, sedges, huckleberries, insects, wild grapes, and acorns constituted the important summer foods.
9. The main fall foods consisted of acorns, grasses, black gum, flowering dogwood, sedges, herbaceous material, wild grapes, and huckleberries.

*(Continued on page 31)*

TABLE 1—*Food in 90 turkey droppings collected in April and May 1942*

| *Kind of food* | *Times occurring* | *Percent of total volume* |
|---|---|---|
| Vegetable matter | | |
| Acorns (*Quercus* spp.) | 80 | 62.8 |
| Grass and some sedge material (Gramineae and Cyperaceae) | 47 | 17.6 |
| Artificial feed (Corn (*Zea mays*), oats (*Avena sativa*), buckwheat (*Fagopyrum esculentum*), etc.) | 15 | 7.3 |
| Cherry (*Prunus* sp. mostly *P. serotina*) | 32 | 3.4 |
| Wild grape (*Vitis* spp.) | 6 | 1.1 |
| Herbaceous material (grass stems, dry leaves, roots, twigs, vegetable matter, etc.) | 6 | 1.1 |
| Dogwood (*Cornus florida*) | 7 | * |
| Grass seeds | 2 | * |
| Buds | 2 | * |
| Green leaves | 1 | * |
| Greenbrier (*Smilax* sp.) | 1 | * |
| Huckleberry (*Gaylussacia* sp.) | 1 | * |
| Woody twigs | 1 | * |
| Unidentified vegetable matter | 3 | .8 |
| Animal matter | | |
| Insect material (Coleoptera, Orthoptera, etc.) | 16 | .7 |
| Snails (Gastropoda) | 8 | * |
| Grit | 41 | 5.2 |

* Trace.

TABLE 2—*Food in 140 turkey droppings collected in June, July, August, and September 1941 and 1942*

| *Kind of food* | *Times occurring* | *Percent of total volume* |
|---|---|---|
| Vegetable matter | | |
| Grasses and some sedge leaves | 87 | 27.8 |
| Huckleberry | 75 | 15.1 |
| Wild grape | 18 | 11.7 |
| Acorns | 79 | 11.4 |
| Herbaceous material (grass stems, dry leaves, roots, twigs, vegetable matter, etc.) | 36 | 7.7 |
| Foxtail grass (*Setaria* spp.) | 9 | 3.5 |
| Cherry | 22 | 3.5 |
| Grass seeds | 45 | 2.6 |
| Blueberry (*Vaccinium* sp.) | 28 | 2.3 |
| Buckwheat | 7 | 1.4 |
| Black gum (*Nyssa sylvatica*) | 6 | 1.1 |
| Fingergrass (*Digitaria* sp.) | 5 | 1.0 |
| Sedge seeds | 27 | 1.0 |
| Dogwood | 4 | .1 |
| Wheat (*Triticum aestivum*) | 1 | * |
| Teaberry (*Gaultheria procumbens*) | 1 | * |
| Green leaves | 6 | * |
| Buds | 1 | * |
| Unidentified vegetable matter | 4 | .4 |
| Animal matter | | |
| Insect material (Orthoptera, Coleptera, Hymenoptera, Diplopoda, etc.) | 93 | 6.9 |
| Snails | 13 | * |
| Grit | 76 | 3.0 |

* Trace.

# Based on Dropping Analysis

*Continued from page 11*

TABLE 3—*Food in 176 turkey droppings collected in October, November and December 1941*

| *Kind of food* | *Times occurring* | *Percent of total volume* |
|---|---|---|
| Vegetable matter | | |
| Acorns | 142 | 56.9 |
| Grass and some sedge leaves | 51 | 10.8 |
| Herbaceous material (grass stems, dry leaves, twigs, roots, vegetable matter, etc.) | 35 | 6.9 |
| Wild grape | 32 | 5.5 |
| Fingergrass | 11 | 3.6 |
| Huckleberry | 12 | 3.0 |
| Dogwood | 51 | 2.4 |
| Grass seed | 16 | 1.4 |
| Wheat | 2 | .6 |
| Black gum | 9 | .3 |
| Cherry | 12 | .2 |
| Foxtail grass | 2 | .2 |
| Lesser ragweed (*Ambrosia artemisiifolia*) | 1 | * |
| Buckwheat | 1 | * |
| Sedge seeds | 5 | * |
| Teaberry | 1 | * |
| Chokeberry (*Pyrus* spp.) | 1 | * |
| Arrow-wood (*Viburnum* sp.) | 1 | * |
| Tick trefoil (*Desmodium* spp.) | 3 | * |
| Hemlock leaves (*Tsuga canadensis*) | 1 | * |
| Unidentified vegetable matter | 6 | .2 |
| Animal matter | | |
| Insect material (Orthoptera, Coleoptera, Hymenoptera, etc.) | 80 | 6.2 |
| Turkey feathers | 2 | * |
| Snails | 1 | * |
| Grit | 61 | 1.6 |

* Trace.

TABLE 4—*Food in 364 turkey droppings collected in January, February and March 1942*

| *Kind of food* | *Times occurring* | *Percent of total volume* |
|---|---|---|
| Vegetable matter | | |
| Acorns | 277 | 53.8 |
| Wild grape | 92 | 19.8 |
| † Artificial feed (corn, oats, wheat, buckwheat, etc.) | 93 | 18.4 |
| Grasses and some sedge material | 71 | 3.1 |
| Huckleberry | 35 | 1.3 |
| Cherry | 103 | .9 |
| Herbaceous material (grass stems, dry leaves, twigs, roots, vegetable matter, etc.) | 27 | .8 |
| Flowering dogwood | 8 | * |
| Black gum | 1 | * |
| Dogwood or black gum | 4 | * |
| Bittersweet (*Celastrus scandens*) | 1 | * |
| Greenbrier | 4 | * |
| Woody twigs | 3 | * |
| Partridge berry (*Mitchella repens*) | 1 | * |
| Grass seed | 1 | * |
| Moss (Musci) | 1 | * |
| Arrow-wood | 1 | * |
| Unidentified vegetable matter | 4 | * |
| Animal matter | | |
| Snails | 11 | * |
| Grit | 132 | 1.7 |

† Feed taken from feeders.
* Trace.

TABLE 5—*Food in 9 turkey crops collected in November 1941*

| *Kind of food* | *Times occurring* | *Percent of total volume* |
|---|---|---|
| Vegetable matter | | |
| Red oak acorns (*Quercus borealis* var. *maxima*) | 2 | 17.1 |
| Acorns | 1 | 11.1 |
| Rock oak acorns (*Q. montana*) | 2 | 4.9 |
| White oak acorns (*Q. alba*) | 2 | 2.2 |
| Wild grape | 3 | 24.1 |
| Corn | 2 | 15.1 |
| Sedge seeds (*Carex intumescens*) | 1 | 11.6 |
| Sassafras (*Sassafras officinale*) | 1 | 4.6 |
| Arrow-wood (*Viburnum acerifolium*) | 1 | 4.4 |
| Huckleberry | 2 | 1.4 |
| Greenbrier | 1 | 1.1 |
| Dogwood | 1 | .7 |
| Striped maple (*Acer pennsylvanicum*) | 1 | .4 |
| Black gum | 1 | .2 |
| Grass leaves | 1 | .2 |
| Maple (*Acer* sp.) | 1 | * |
| Woody twigs | 1 | * |
| Leaves | 1 | * |
| Buckwheat | 1 | * |
| Fern (Pteridophyta) | 1 | * |
| Tick trefoil | 1 | * |
| Animal matter | | |
| Grasshoppers and walking sticks (Orthoptera) | 4 | .7 |
| Beetles (Coleoptera) | 2 | * |
| Beetle larvae | 1 | * |
| Wasps and ants (Hymenoptera) | 1 | * |
| Snails | 2 | .1 |
| Grit | 3 | .3 |

* Trace.

TABLE 6—*Food in 14 turkey stomachs collected in November 1941*

| *Kind of food* | *Times occurring* | *Percent of total volume* |
|---|---|---|
| Vegetable matter | | |
| Acorns | 7 | 14.0 |
| Wild grape | 5 | 9.8 |
| Black gum | 8 | 9.1 |
| Dogwood | 7 | 3.4 |
| Wild cherry | 5 | 2.1 |
| Huckleberry | 3 | 1.8 |
| Herbaceous material (stems, roots, leaves) | 3 | 1.8 |
| Corn | 2 | 1.1 |
| Greenbrier | 1 | .7 |
| Grass | 3 | .5 |
| Grit | 14 | 54.1 |

**Feeding shelters such as these attract wild turkeys.**

# A Progress Report on Cottontail Rabbits

*Continued from page 15*

age of 4.92 young per litter, a total of 17.22 young per female would result.

The loss of nestling cottontails was high, although the female was generally careful to select a suitable nesting site and would sometimes attempt to defend the young. Daily observations at all available nests revealed that man, farming operations, excessive water, predators and insects were responsible for the destruction of 36.36 per cent of all nests. The estimated increase of 17.22 young per female would, therefore, be reduced to 10.96 by nestling mortality.

During the nesting season of 1939 a complete record of population changes was obtained on a 15 acre tract by continuous live trapping and tagging. Six adult females and 55 immature animals were trapped and tagged during this period. These results further corroborate previous estimates here presented, for accordingly 6 females would be expected to produce 65 young that would successfully leave nests. Obviously, some immature animals were never trapped, and predation appeared to be the most important mortality factor affecting juvenile cottontails. By November only twenty juvenile cottontails were known to inhabit the study tract. A loss of 63.64 per cent of the entire juvenile population, therefore, resulted. Only 3.33 offspring could be attributed to each female. Juvenile losses may be expected to fluctuate within different coverts, and within the same covert during different years in accordance with the number and virulence of the mortality factors. If the hypothetical population of 10.96 juvenile cottontails per female underwent a similar decimation only 3.98 young per female would be available by Nov. 1. It was the conservation opinion of the writers that the average female cottontail produced approximately four offspring that were available to hunters.

Some of the results of these investigations were applied to statistics found in the files of the Game Commission. For instance, the sex ratio of Western rabbits imported for an entire season is approximately one to one; the average number of Western rabbits imported during the last ten years was approximately 65,000 at a cost of about 80c each, or $53,000. The average number of native rabbits caught and redistributed during the past three years was approximately 25,000 animals at about 40c each.

In order to draw a comparison of the two groups of rabbits, figures on the basis of 50,000 rabbits imported and 50,000 native rabbits caught and redistributed were compiled, and table II was drawn up to show the possible expected yield to the hunter from the two groups.

On the basis of the above computation, it will be noted that the 10,800 western rabbits which could be expected to die prior to the breeding season aggregated a cash loss of $8,640, as compared to $1,040 for 2,600 native cottontails. Undoubtedly these figures may seem unbelievable to most hunters when they realize that the average annual rabbit kill during the past ten years has been over two and one-half million (2,500,000) animals. The reader should consider these figures carefully. Fifty thousand (50,000) imported Western rabbits could be expected to increase the fall shooting population to approximately one hundred fifteen thousand (115,000) animals, only a portion of which would be taken by the hunters. Nevertheless, the average annual kill (2,500,000) was over twenty-one times the number of rabbits produced from such an importation.

From these figures it would seem quite evident that neither the importation of Western rabbits nor the redistribution of native rabbits can be the sole answer to an increased shooting population. It would seem quite feasible that the improvement of rabbit coverts through better management would do more to increase the population. Improvement of the rabbit's home is something that every farmer and hunter can participate in at a considerable saving in expenses, as compared to importation and redistribution.

**Conclusion**

From the results of the experiments and investigations, it would seem apparent that: (1) mortality in rabbits from time of release is approximately equal in respect to the sex; (2) mortality prior to the breeding season, in imported Western rabbits can be expected to be between 20 and 25 per cent, while in redistributed native rabbits it is between 5 and 7 per cent; (3) the average female cottontail cannot be expected to produce more than four mature young annually; (4) the importation of Western rabbits produces a very small percentage of the annual kill of cottontails in Pennsylvania and cannot be expected to reestablish a large shooting population at a reasonable cost; and (5) perhaps management of land for better natural protection of cottontail rabbits would increase the population to the desired level with considerably less expenditures of Game Commission funds.

TABLE II

| | *Western* | *Pennsylvania* |
|---|---|---|
| Average number of rabbits released | 50,000 | 50,000 |
| Average cost per rabbit | $0.80 | $0.40 |
| Average cost per year | $40,000 | $20,000 |
| Per cent loss prior to breeding season | 21.6% | 5.2% |
| Number lost prior to breeding season | 10,800 | 2,600 |
| Number remaining prior to breeding season | 39,200 | 47,400 |
| Sex ratio 1:1—Number productive females | 18,600 | 23,700 |
| Mature progeny produced per females | 4 | 4 |
| Number of mature progeny produced | 74,400 | 94,800 |
| Total number of mature in fall | 113,600 | 142,000 |
| Increase in Native over Western | ..... | 28,600 |

Photo by C. Gordon Krieble.

**Many stone hutches such as the above have been built on game lands to provide retreat havens for rabbits.**

# Log of Rattlesnake Shack

*Continued from page 17*

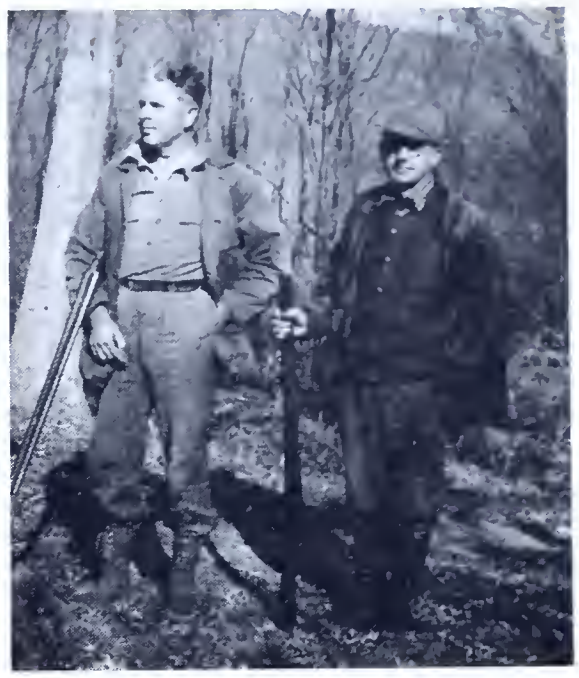
**Returning from the hunt.**

that fell on one of the rock slides of Stony Mountain. After a search, hours it seemed, one tiny feather was observed upon the edge of a large boulder. Reaching between the stones that formed a small cave or pocket, we retrieved the grouse at complete arms length in the hole.

Among the grouse hunting enthusiasts who made Rattlesnake Shack headquarters over many hunting seasons we wish to mention Frederick Trimble. He could walk alone upon this stony mountain slope and before long he is back with his day's limit. Fred, balanced on a tetering rock, could pattern a grouse through the foliage of a hemlock tree.

November is a month of varied temperatures and we record anywhere from 60 to 16 degrees. Some days biting flies, house flies and wasps, fooled by the warmth, leave their hibernating quarters. Even butterflies that have tucked themselves away for the winter, sneak out again to flit in the sunshine. It is interesting to note that the Mourning Cloak butterfly, the Graptas and a few others hibernate in the adult stage, hunting shelter in caves, logs, cracks in old buildings or like places. Even a few moths and caddice flies come to the window lights on warm evenings.

Witch hazel blossoms may still be seen, and along the creek and swamps there is a glowing crown of vermilion berries on the deciduous holly (Ilex verticillata). This shrub is quite common here and used extensively for decorative purposes. The forest trees bereft of leaves are even beautiful in their nudeness, their masses reflecting colored shadows in the depths, of violet, amber and rose. What a thrill to tread the hills and valleys! Then rain and sleet and snow, a good time to enjoy the camp's friendly warmth, to read and rest and soliloquize—to enjoy the radio and to jot down a note or so



**F. M. Trimble and H. B. Kirk star hunting guests at Rattlesnake Shack.**

for future reference. Soon it will be time to prepare for bigger game, let us try to appreciate the opportunities our Mother State provides for us—let us hunt in the most approved sporting fashion, not forgetting the etiquette of the out of doors, to refrain from cluttering nature's face with lunch papers and debris, and to give an even break to our quarry as well as to our fellow sportsmen.

# Pennsylvania Wild Turkey Food Habits

*Continued from page 29*

10. Preferred foods did not always represent the largest amount of the total volume.
11. The analysis of the 770 droppings, 9 crops, and 14 stomachs collected in Pennsylvania compared favorably with analysis of turkey crops from Virginia, Alabama, and Missouri.

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---

We hope television never extends to telephones. Gone will be the days when a person can answer the phone in his night clothes or with shaving cream on his face. And the women will always have to stop by the mirror to give their face the once over. Because you never can tell who is on the other end of a telephone call.

---

Shrimp support the most important fishery industry on the South Atlantic and Gulf Coasts, and the third in size on the whole Atlantic Coast.

---

There are 700,000 named species of insects, and between 2,500,000 and 100,000,000 species altogether, according to estimates.

---

Another thing the unemployed might do in his spare time is train the wolf at the door to frighten the stork away.

# RING-TAIL STRATEGY

*By Paul P. Prugh*

From personal observance, to my way of thinking, the raccoon is one of Nature's greatest strategists. With age, his cunning seems ever to increase, putting sly old Reynard, the fox, to shame with some of his tricks. Therefore the hound that follows his trail and puts him snugly up in the branches of a tree, to stay there, must have experience, stamina, courage, and some of that same cunning tucked away in his make-up.

Have you ever been following your hounds on a perfectly good track, to have that track seemingly disappear into thin air? Well if you have, you will know what I mean.

We'll try to enumerate a few of the strategies of this wily roamer of the wastelands.

A very common little stunt, known to all coon hunters is "tapping" or "barking", jumping up on a tree, then off to continue on his flight, thinking his pursuer will stop at that tree, which sometimes happens if the dogs do not circle the tree, and pick up his trail, where he continued on his journey. I have seen this practiced by very young coons.

Another is climbing a tree, traveling over the tree tops for some distance where the branches intermingle, then down on the ground again and away.

Hiding his trail in water is another of his favorites, entering the stream, swimming for some distance, to emerge and continue on to his den tree or other refuge.

Another one which a great many hounds miss up on is back tracking, where the coon circles and goes back on his old trail, throwing the hounds in such confusion that they just seem to run in circles, or back and forth on the track without getting anywhere.

Climbing over fallen tree tops, running rail fences, traveling bare ground and rocks, also running a bare, hard packed road, are all in his category. He seems to know where the trailing is hardest for the hounds.

The best one I have ever witnessed, I think, was where an old timer led the hounds to a woven wire fence. There he seemed to vanish into space. The dogs followed up one side, and down the other of that fence, but the trail was not to be found. We concluded he had climbed along on that wire fence for some distance, leaving little or no scent, and jumped from the fence to an old hollow tree which stood nearby.

The old mother coon, putting her young up a sapling, making plenty of tracks on the ground, and continuing on, to keep the hounds after her, is another example of unexcelled cunning.

The one which makes us swear sometimes, but for which we all have to admire him, is pulling straight for his den tree, where he knows he is safe from all harm, and putting his head between his front legs. Hiding his eyes, when treed, is another proof of his smartness.

The author and a ringtail.

So, boys, if your hounds don't tree all the trails they start, don't blame them; just remember they're dealing with one of the most cunning denizens of the wild.

# Get Ready

*Continued from page 13*

might have day-dreamed the hours away in that tempting spot. Can't you see? All of that is a simple hunter's paradise, but just as acceptable are the rains, the snows, the valleys, the hills: the supposedly more dismal aspects of nature. Perhaps it is only because I can love every kind of weather and element that I may call myself a hunter. I like the blue sky-waving goldenrod days, but they hold none of the excitement or anguish of bitter cold or pelting rain. These elements scrub you clean with their freshness, their abruptness. They leave you spent and bewildered, yet you would not resist them if you could. You exult in watching a gray sheet of rain slashing towards you just as you glory in watching the sun mark the end of day with a period of color. A true sportsman sees and accepts Nature in all her moods. He recognizes and never doubts the values of her ever-changing temperament. He respects her acceptance of him.

You will find that early in the day your eagerness to be on the trail is immeasureable, but how much more anxiously you will long for nightfall—to be home where you can hug the comforts of your own fireside. The fagged-out numbness that makes home and crackling logs your supreme goal is to me by no means least in importance as a reason for liking to hunt. On the path home, which is twice as long as when you traveled it out, you can picture only a steaming tub of water waiting to ease the soreness from your already stiffening body. Home: where you can drop that blasted gun that somewhere along the line has gained twenty pounds. Boots that started the hike proudly and briskly are now oozing with water and cold with every labored step. Your face and hands are swollen from briar scratches and welts from snapping branches. Blood is caked beneath your finger nails and on your breeches. You can't lift your legs, much less your spirits. All you can do when you finally stagger through the back door is to gasp for help. For me, when leaden boots are finally pried loose and my stomach stuffed to its limit, I curl up in flannel pyjamas and snuggle deep within the folds of an itchy wool blanket before the fireplace. I have pulled the davenport in front of it, and there I nestle, glowing from the friendly snappings and warmth of the logs. This is the best part of hunting. During the day I can be a brute for punishment; but when the hunt is over, I only value these luxuries all the more. I have earned them. Often I've wondered how people could appreciate such treasures—hot water, roaring fire, savory meal, and relaxation—without knowing what it is like to be without them. A fire is twice as crackling, a meal twice as delicious, and home never so wonderful as when you return from hunting.

It is then, while I fire-dream on the davenport and the shadows play tag with each other across the walls, that I think about hunting most. Once more I live the day's experiences and wonder how I could possibly have missed that cock pheasant . . . must remember to line up those sights tomorrow. The fire makes me sleepy after that tormenting wind which bombarded me all day. My mind slips from the fire-dreams to unbroken sleep that soothes my aching body. My last thoughts are where I shall hunt next week, for you see, it is my life . . . a life that every American girl can call her own.

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# OFFICIAL 1942 OPEN SEASONS AND BAG LIMITS

(AS FIXED BY COMMISSION AT MEETING ON APRIL 30, 1942)

(All Shooting Hours Based on Eastern War Time)

Open season includes both dates given, Sundays excepted for game. **On October 31 no hunting of any kind before 9 A. M.** With this exception, shooting hours daily are 8 A. M to 6 P. M., except from July 1 to September 30 inclusive, 7 A. M. to 8:30 P. M. Traps may not be set before 8 A. M. on the first day of any season for trapping in open counties. Raccoons may be hunted at night, with a noon-to-noon daily limit.

| UPLAND GAME (Small game possession limit three days' bag) | Bag Limits Day | Bag Limits Season | Seasons Open | Seasons Close |
|---|---|---|---|---|
| Ruffed Grouse | 2 | 10 | Oct. 31 | Nov. 28 |
| Quail, Bobwhite | 5 | 15 | | |
| Wild Turkey (See 10 counties closed below)* | 1 | 1 | | |
| Ringneck Pheasants, males only | 2 | 12 | | |
| Grackles (commonly called Blackbirds) | Unlimited | | | |
| Squirrels, Gray, Black and Fox (combined kinds) | 5 | 20 | | |
| Rabbits, Cottontail | 4 | 20 | | |
| Hares (Snowshoe or Varying) | 2 | 6 | Oct. 31 | Nov 14 |
| Hungarian Partridges (2 counties only)* | 2 | 8 | | |
| Squirrels, Red | Unlimited | | Oct 31 | Sept 30 1943 |
| Raccoons, by individual or hunting party: | | | | |
| Upper Zone: (17 counties)* | 2 | .. | Oct. 20 | Jan. 15. 1943 |
| Lower Zone: (50 counties)* | 2 | 15 | Nov. 10 | Jan. 15. 1943 |
| Raccoons, by trapping (See 15 counties closed below)* | | .. | Nov. 10 | Jan. 15. 1943 |
| Woodchucks (Groundhogs) | 5 | Unlimited | July 1 | Sept. 30 |
| Bear, over one year old by individual | 1 | 1 | Nov. 18 | Nov. 21 |
| Bear, over one year old by hunting party of three or more | 2 | 2 | | |
| Deer, male with two or more points to one antler | 1 | 1 | Nov. 30 | Dec. 12 |
| Deer, as above, by hunting party of six or more | 6 | 6 | | |

**NO OPEN SEASON—Hungarian Partridges** (except as above noted), **Sharp-tailed Grouse, Doves, Antlerless Deer, Elk, Cub Bears and Otters.**

**FUR-BEARERS**—(Traps not to be placed before 8 A. M. on any opening dates)

| | | | |
|---|---|---|---|
| Minks | Unlimited | Nov. 10 | Jan. 15, 1943 |
| Muskrats (By traps only) | Unlimited | Dec. 1 | Jan. 15. 1943 |
| Beavers (By traps only, statewide)* | 3 | Feb. 15 | Feb. 28. 1943 |
| Skunks | Unlimited | Nov. 10 | Jan. 15, 1943 |
| Opossums | Unprotected until | September 30, 1943 | |

**AN APPEAL TO TRAPPERS**—In order to avoid destroying game and injuring dogs, trappers are requested to refrain from setting traps in trails. All traps must be tagged; durable substitute for metal tag may be used.

## *SPECIAL COUNTY REGULATIONS

**Hungarian Partridges**—Hungarian Partridges may be hunted only in Cumberland and Franklin Counties. All other counties are closed.

**Turkey**—No Turkey season in Cameron, Clarion, Clearfield, Elk, Forest, Jefferson, McKean, Potter, Warren and Westmoreland Counties.

**Raccoon Hunting**—

Upper Zone: This zone comprises the counties of Bradford, Cameron, Centre, Clearfield, Clinton, Elk, Jefferson, Lackawanna, Lycoming, McKean, Pike, Potter, Sullivan, Susquehanna, Tioga, Wayne and Wyoming.

Lower Zone: This zone comprises all counties not included in the Upper Zone.

**Raccoon Trapping**—No raccoon trapping in Beaver, Berks, Butler, Cambria, Chester, Dauphin, Delaware, Jefferson, Lancaster, Lawrence, Lebanon, Luzerne, Northampton, Schuylkill and York Counties.

**Beaver Trapping**—Beaver trapping in all counties. **Non-Residents may not trap beavers in Pennsylvania.** One person may set, tend or operate 10 traps only. Persons trapping beavers are required to keep the trap tags above ice or waterline to facilitate identification without disturbing the traps. To expedite the tagging of beaver pelts as required by law, trappers are requested to have them tagged in the district or county in which taken.

**Snares**—No counties open to use of snares this winter.

## FEDERAL SEASONS MIGRATORY GAME BIRDS—

| | | | |
|---|---|---|---|
| Rails and Gallinules (Except Sora and Coot) | 15 combined kinds | Sept. 1 | Nov. 30 |
| Sora | 15 | Sept. 1 | Nov. 30 |
| Woodcock (Possession Limit—8) | 4 | Oct. 24 | Nov. 7 |
| Wild Ducks (See Restrictions) | 10 | Oct. 15 | Dec. 23 |
| Wild Geese | 2 combined kinds | | |
| Coots (Mudhens) | 25 | | |

***RESTRICTIONS**—Daily bag limits—DUCKS: 10 in the aggregate, may not include more than 3 Redheads or Bufflheads, or 3 of these combined species, and 1 Wood Duck.

**POSSESSION LIMITS**—Ducks, Geese, Brant and Woodcock: Twice the daily bag (except on opening day). BUT ONLY ONE (1) WOOD DUCK MAY BE POSSESSED AT ANY TIME. All other migratory birds: One day's limit only. Possession limited to 30 days after season.

**SHOOTING HOURS**—(Eastern War Time)—Migratory game birds: From beginning of respective seasons to Oct. 30, inclusive, sunrise to sunset; Oct. 31, 9 A. M. to 6 P. M.; Nov. 1 to end of respective seasons, 8 A. M. to 6 P. M. (unless sunrise occurs later or sunset earlier, when Federal sunrise-sunset regulations automatically apply.)

# *Thanksgiving*

We are thankful for the rich heritage which is ours

We are grateful for a land of abundant and potential energy bequeathed to us

We are thankful for the great outdoors and all its splendor, which invites us to communion with Nature and God

We are grateful for the right to live as free men, and the great resources with which to fight to maintain those freedoms.

In our humility, on this Thanksgiving Day, we give thanks for the human spirit which pervades the oppressed peoples of the world causing them to rise above themselves in their struggle to preserve a free and enduring civilization.—R. Stanley Cooper.

# PENNSYLVANIA GAME NEWS

December
1942
Ten Cents

P38.3
1.6
Copy

Merry Christmas

Wherever you are

# PENNSYLVANIA GAME NEWS

PUBLISHED MONTHLY BY THE PENNSYLVANIA GAME COMMISSION, HARRISBURG, PENNSYLVANIA

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ARTHUR H. JAMES, Governor

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# This PEEP at your Xmas Problem Supplies the Answer

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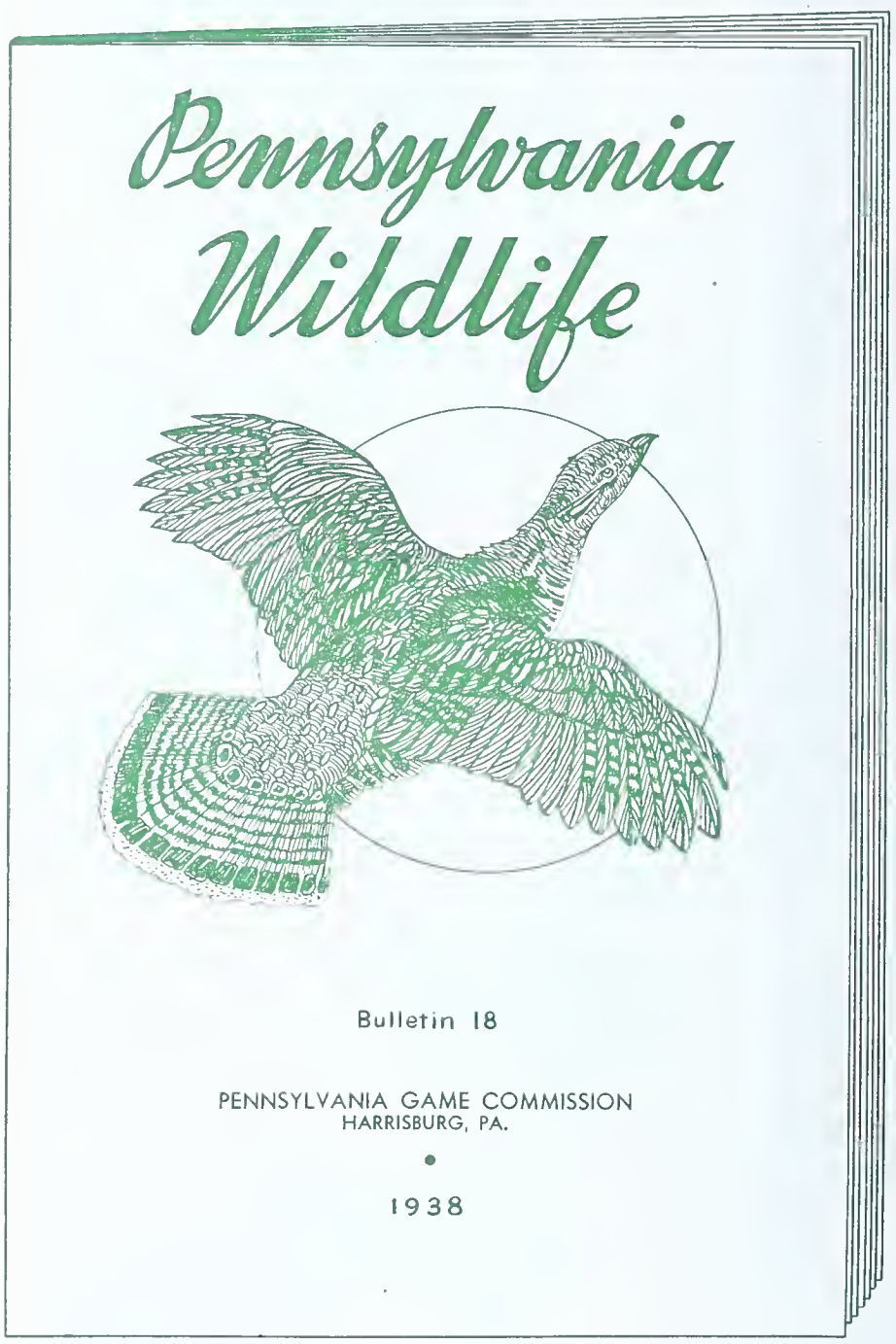


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VOL. XIII, NO. 9

# EDITORIAL

DECEMBER, 1942

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## WORTHY CAUSES

Two worthy war-effort projects in which hunters and trappers can participate with little or no effort are outlined on pages 3 and 13 of this issue. One project, sponsored jointly by the Commission, the State Trappers Association, Fur-dealers and Rendering Plants involves the saving of fats from fur-bearing animals for making soap and glycerine. The other, sponsored by the International Leather Workers Union and numerous tanneries throughout the Commonwealth, involves the contribution of deer skins for making into vests for the Merchant Marine. Both have tremendous possibilities if hunters and trappers cooperate. Both offer a challenge. Will you meet it?

## HELP!

In the past year and a half the subscriptions to THE PENNSYLVANIA GAME NEWS have decreased considerably. We expected that decrease as a result of the war effort. Many subscribers entered the armed forces, many moved away to enter industrial plants and other defense positions, and didn't renew their subscriptions because they figured there would be very little time to read it.

They were perfectly justified in taking that position. Many persons have discontinued publications for less justifiable reasons. We would not like to think that our readers discontinued the NEWS because they believed it too costly or uninteresting, especially since we have tried hard to keep the fee low and the quality high.

But now with so many of our friends dropping out of the picture it looks as though we'll have to take it on the chin for awhile unless we can get other friends to take their places. The way the future looks, unless we gain a lot of new readers between now and Spring, we will be forced to reduce the number of pages and illustrations or increase the fee, or maybe both.

We have never made a downright appeal to our subscribers for support before, firmly believing that they would rally behind us in our endeavor to keep this publication on an even keel and up to high standards.

The simplest way in which you can demonstrate your faith and interest in what we are trying to do for conservation and the war effort through the NEWS is to send us just one subscription—that's all we ask. Maybe you would like to subscribe for a Service Man so that he has an unbroken file of them when he returns. You may desire to make someone a Christmas present of a subscription.

At any rate, if each reader just sends one it will more than compensate for our losses—it will insure a continuation of our joint efforts to safeguard our resources when they most need it.

## BUY WAR BONDS AND STAMPS

International News Photo.

A member of the Coast Guard with his German Shepherd on guard. In addition to coastal areas the War Dogs patrol army posts, shipbuilding plants, airplane hangars, government warehouses, arsenals, etc. A man and a sentry dog have been found equal to six regular guards. Germany is now using 50,000 sentry dogs. The U. S. Army wants 125,000. Our readers are urged to volunteer to raise puppies for this vital work; food will be supplied them and veterinary services will be free. Write today to Lt. W. Newbold Ely, U.S.C.G.R., Ambler, Pennsylvania.

# *To All the Woods People, Thanks*

To you who live in the meadows
The Woodlands, the hedgerows the banks
Take this lull of the hunting season
With a country's grateful thanks.

Many a sportsman is missing,
The voice of his dog is still.
They have gone to a greater hunting,
They are after a deadlier kill.

The man you trained to alertness
Has taken the soldier's vow.
The hound whose wits you sharpened
Is on sentinel duty now.

So to you who live in the meadows,
The woodlands the hedgerows, the banks,
To you who were part of the training
We tender a humble thanks.

For a nation of men who are hunters,
To defend a land where they
Have a right to a gun, the game, and the fun
Of hunting the sportsman's way.

—*Margaret Fifer.*

Vigil on a northern ship lane at sea. Bundled up against the frigid air that prevails even at this time of the year on the north Atlantic supply route, a lookout keeps watch from the signal bridge of one of the warships of the Atlantic fleet as it does its job of keeping the sea lanes clear of Axis interference.

International News Photo.

# HUNTERS!

## Your Deer Skins Can Help Win the War

*As fur-lined jackets they will keep our Merchant Seamen snug and warm while . . .*

"They Keep 'Em Sailing"

*HELP YOUR COUNTRY*

International News Photos.
**Cutters: Members of Local 110 are skilled craftsmen through whose hands the furs pass first. They cut the furs to pattern.**

IN the past several years the Game Commission encouraged hunters to save their deer skins. It asked the Boy Scouts to help tan them and sportsmen's organizations to contribute hides and funds for the purpose, but with limited success. The whole program was too economically difficult from the standpoint of travel and expense for hunters to participate in very large numbers. Many of them did. Had the sale of deer skins been permitted in the Commonwealth it might have been a different story, because then fur dealers, tanneries and leathercraft manufacturers would no doubt have worked out some plan by which the skins could have been collected. But all that might have been.

This year the International Fur and Leather Workers Union of Westfield, Pa., through its Secretary-Treasurer Mr. H. L. Parsons, New York City, and Mr. Harry Millstone, organizer for the Union, Local No. 211, with offices in Williamsport, conferred with representatives of the Commission on a plan to have deer skins donated by the hunters this season and turned over or shipped to certain tanneries or tanning companies designated by the Union where the hides would be salted and stored for shipment to a central point.

This new campaign, with which the Commission concurred at its meeting on October 9, is known as the "Win the War Drive" on the part of the fur and leather workers association. The whole idea is this, Mr. Hunter, and if you do not subscribe to it after hearing about it you will have lost an excellent opportunity to do another job to aid the war effort.

Here's what the Association wants you to do: Turn your hides over to anyone of the various tanneries mentioned hereinafter. The Union has arranged with its affiliated branches to cooperate to the fullest extent. After the hides are salted and stored by the tanneries they will be shipped to a central processing plant. That plant will donate its chemicals and machinery, and the workers will donate the time required to tan the hides.

After they are tanned they will be shipped to a firm in New York City. That firm will donate chemicals and machinery necessary to make them into vests, and the workers there, will donate their time to this work. The vests are to be without collars and sleeves, and will be lined inside with fur and made into tight fitting garments. The Union will then donate these leather vests to members of the United States Merchant Marine who serve on ocean going vessels carrying supplies for American troops or for our Allied Nations, especially where those trips are made to cold climates.

Now Mr. Hunter, you can readily see how you can contribute to a very successful undertaking if you cooperate. If an organization of artisans, a commerical tannery, and a commerical processing establishment can donate their chemicals and machinery, and their employes can donate their time, surely you will meet the challenge.

Thousands of deer skins, the potential vests I mentioned a moment ago, will go the way all the other deer skins went in the past, and there were thousands, if you do not cooperate. Americans have proved that they are not the kind of people who have to be urged or influenced to demonstrate their patriotism. They remain indifferent and impassive up to a certain point, but once riled and faced with a problem they are going to meet it. Just as they are meeting every emergency that arises today, just so they will meet them in the days to come; just so they will ultimately emerge the victors in this world war. But it all requires *team work*. If a few hunters here and there throughout the State donate a hide or two, it isn't going to mean a thing. Every fellow who kills a deer must realize he also bagged a potential vest for a seaman who needs it. And if he doesn't live near a tannery is it asking too much of him, I wonder, to wrap the skin up, pay a few cents express charges, and send it to the nearest tannery.

The leather workers group expects to place mimeographed and printed material outlining the program in detail in the hands of every sportsmen's organization before the opening of the deer season. The plan will also be given wide publicity in the newspapers and on the radio. Tanneries within the Commonwealth that are going to lend their whole-hearted cooperation include the Williamsport, Noxen, Gleasonton, St. Marys and Westover branches of the Armour Leather Co.; the Ridgeway, Clearfield, Emporium, Wilcox, Pa., and Salamanca, New York, subsidiaries of the Keystone Tanning and Glue Company; the Mt. Jewett and Curwensville branches of the Howes Brothers Tannery; and the Eberle Tannery at Westfield; The Pen Argyl Fur Company, Pen Argyl; the Loyal Fur Manufacturing Co. 346 Church St., Danville, Pa., and the Queens Premier Fur Dressing and Dyeing Co., St. Joseph and Ann Sts., Easton, Pa. These tanneries cover the real heart of the deer country and hunters should have little difficulty and very little expense in consigning their deer skins to them.

Three companies in the Philadelphia district have already signified their willingness to assist, namely, the Surpass Leather Co., 9th & Westmoreland St.; E. H. Hubschman & Son, 415 N. 4th St.; and Frank DiVincenzo, Business Agent of the Philadelphia Leather Workers Union, Local No. 30, 2701 Allegany Ave., all Philadelphia. There are other establishments in the southeast, including Allentown and Easton, and some in the Pittsburgh area which will no doubt indicate their willingness to participate, so watch your local papers as the deer season approaches Mr. Hunter so you'll know where to ship your skin locally.

If we hear from the sponsors of this movement before we go to press, we'll try to in-

*(Continued on page 22)*

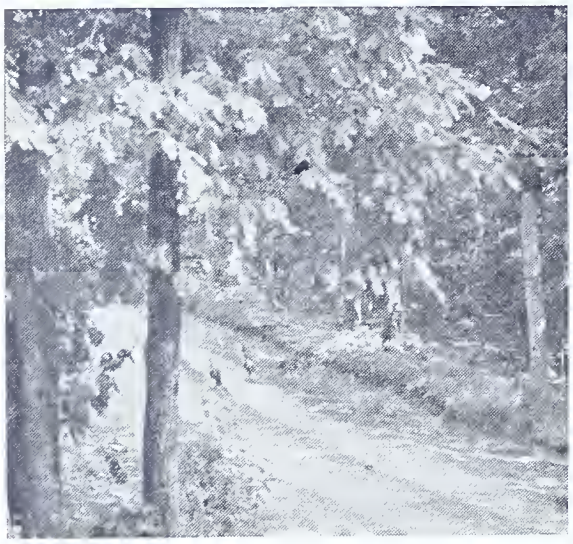
**Nailers: After the sewn skins are wetted they are nailed to boards marked to pattern. Some workers at the New York project pledged as high as 100 hours voluntary labor to make jerkins for courageous seamen. Members Local 110.**

**Operators: Members of Local 105 sew together the furs that have been cut by the cutters. New York project alone set a goal of 50,000 fur vests.**

**Finishers: Members of Local 115 set fur linings to green whipcord waterproofed tops for the seamen who stand watch on icy decks.**

# Where Did the Turkey Go?[1]

*By Orrie Smith & Edward L. Kozicky*



A flock of wild turkeys walking along a mountain road in late summer.

"WHAT happened to my flock of wild turkeys?" This is a question that sportsmen ask game protectors and game land managers every year, especially during the fall season. A sportsman who has watched a particular flock during the summer months in anticipation of the approaching open season suddenly finds in early October that his favorite flock has disappeared.

The average individual concludes that the birds either were killed by poachers or that the game land manager or game protector drove or induced them to enter a refuge. The fact is wild turkeys shift their range during the various seasons. It is, therefore, logical to assume that turkeys will either leave or utilize a particular area, depending on its suitability to their needs during spring, summer, fall, and winter seasons.

Early in the spring turkeys disband from their regular winter flocks. Flocks of hens break up and the birds travel alone or with one or two companions. Gobblers more than a year old disband their flocks and travel by themselves in search of hens. They usually separate before the hens. Birds may wander for two or three miles from their winter range in search of suitable nesting sites. Sportsmen sometimes wonder where the turkeys have come from as there was no sign of them in a particular area during the winter. Some of the birds may remain in the vicinity of their wintering area if conditions are suitable. During this season of the year they seek openings in secluded areas bordered by timber. Near these openings insects, grasses, berries, and grit are obtained, and the birds nest and rear their young close to such sites.

As the summer progresses, hens start to range with their young to a greater degree. The birds grow rapidly and by September are able to travel as well as the old birds. During September turkeys are frequently seen along roads, abandoned fields, grain fields, and clearings where they find an abundant food supply. It is common to find dusting sites and discarded feathers on a turkey range in late summer, as the birds moult in August. Gobblers band together shortly after the mating season and travel in flocks.

During October, after several frosts have killed or inactivated the insect life and caused the leaves to fall, turkeys shift their range. At this time of the year, the woods become open and the birds are wilder. The increased wildness of the turkeys at this time is one of the reasons why they are not seen as often as in the summer. As insects, grasses, and berries are reduced in number, acorns from the various oaks become the chief source of food. Turkeys travel over a larger range in the fall than at any other time of the year; perhaps doubling their late summer range.

Some of the characteristics of good Fall turkey range are as follows:

(1) The ideal oak forest turkey range should contain the largest amount of white oak in relation to chestnut oak, red oak, black oak, and scarlet oak. Such areas are usually found at the base of ridges or in flat areas on or between ridges, and are called the mixed oak forest type.

(2) Eighty per cent or more of the entire stand should be oak, over six inches in diameter at breast height and over thirty feet high. Latham (1939) showed that the present turkey range is confined to the oak-pine forest in the southern half of the state.

(3) There should be an abundance of decaying logs that provide insects. This factor is especially important in the early fall.

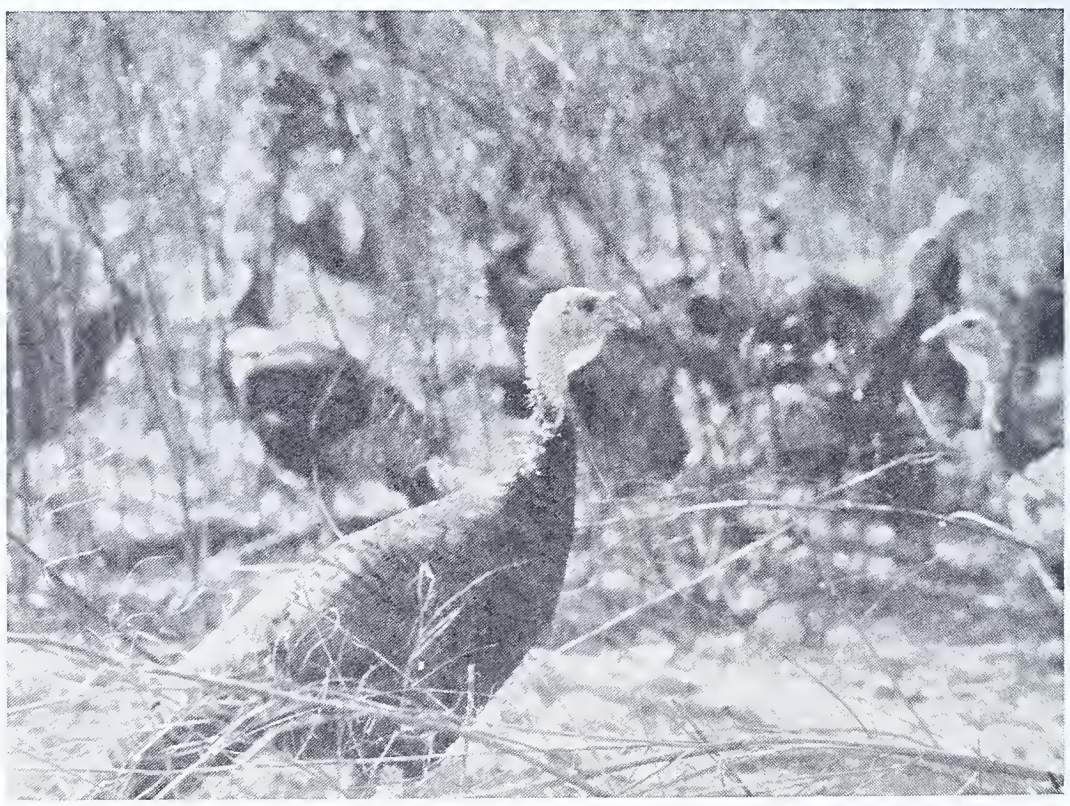
(4) The understory should be open, as turkeys do not like to range through areas with dense brush. If the understory is open and mast is present, turkeys range through areas having small trees, i. e., four to five inches in diameter at breast height.

(5) The area should have an abundance of natural food.

(6) The turkeys should not be disturbed. During the fall the birds do not frequent openings as they do in the summer. If natural food is scarce, they may travel to grain fields bordered by timber to find food.

The hunting season causes the birds to scatter, and they may be found on all parts of their range. Birds are likely to seek high ridges and inaccessible areas where it is relatively quiet, especially after the first week of the season. Hunting causes turkeys to be found in strange habitats; they may wander or be chased a number of miles from their original range. After the hunting season, however, the birds, as a rule, return to their former range. This may take three or four weeks. Some birds unite with other flocks and fail to return.

*(Continued on page 22)*



During the Fall the birds do not frequent openings as they do in the Summer.

[1] Paper No. 38 from the Pennsylvania Cooperative Wildlife Research Unit. Fish and Wildlife Service (U. S. Department of The Interior), The Pennsylvania State College, Pennsylvania Game Commission, and American Wildlife Institute cooperating.

Authorized for publication on Sept. 21, 1942 as Paper No. 1128 in the journal series of the Pennsylvania Agricultural Experiment Station.

[2] Game Land Manager, Pennsylvania Game Commission.

[3] Graduate Assistant, Department of Forestry, The Pennsylvania State College.

# An Accounting to the Sportsmen

*By N. E. Slaybaugh*

WHILE Pennsylvania sportsmen gladly contribute $2.00 annually to the Game Fund to perpetuate their sport, they want to know for what purposes their money is being expended. The Commission appreciates this interest on the part of the sportsmen, and always welcomes the opportunity to give a complete accounting of its stewardship.

The sportsmen have been paying their own way since the enactment of the Resident License Law in 1913, when the license fee was $1.00. The fee was subsequently increased to $1.25 and later to $2.00, the present fee. The accomplishments during the past twenty-eight years have been such that they would not be satisfied with any other financial program. The fact of the matter is many sportsmen now look upon the license fees as an investment in a long-term conservation program which guarantees happy hunting days, not only for themselves but to their posterity.

### Income and Expenditures

During the year which ended May 31, 1942, the income from all sources credited to the Game Fund amounted to $1,650,988.61, falling $7,750.16 below the all-time record of $1,658,-738.77 credited to the Game Fund during the previous fiscal year. For details please refer to the first part of Table No. 4. It was most fortunate, indeed, that two all-time records were established at this time, thus making it possible to set aside a "War Time Reserve", the purpose of which is fully explained later on in this article. As will be noted, the bulk of the revenue was derived from the sale of licenses, the amount being $1,452,460.34. On the basis of preliminary reports (subject to slight change) there were 676,349 Resident and 10,785 Non-Resident Licenses issued, a total of 687,134.

The expenditures for the year which ended May 31, 1942 totaled $1,433,415.24 (See Table No. 4 for details). The Commission, following a long-established policy, operated well within its income.

The land management expenditures for the period under discussion, as during the previous year, exceeded the amount spent to buy land. This also is in keeping with the Commission's current long-range program. It is obvious to all concerned that the land management expenditures will increase from year to year, while the amount spent to buy more land must of necessity decrease. This part of the Commission's program is carried on by earmarking seventy-five cents from each $2.00 fee paid for a Resident Hunter's License. At the end of the period under review the Commission had under its control more than 1,000,000 acres of game lands. While the Commission does not pay taxes in lieu thereof it pays fixed charges on State Game Lands. This one item of expense alone amounted to $32,881.93 for the fiscal year under review.

### Composite Statement

Table No. 1 which accompanies this article, has been brought up-to-date by including the income and expenditures for the year which ended May 31, 1942. As is to be expected, in any long-term composite statement, the percentage of the total expended for each of the major functions in relation to the total changes slowly and seem to remain practically the same as the last published statement. During the 22½-year period the Commission expended a total of $23,442,561.33, of which $13,457,645.14 (57.4%) of its total outlay went into the production and stocking of game, public hunting grounds and refuges, and bounties; $7,216,161.47 (30.8%) for the protection of game, mostly law enforcement; and $2,768,754.72 (11.8%) for all other purposes.

### Status of Game Fund

The condition of the "Game Fund" as of May 31, 1942 was never better, a fact that will be heartening to all sportsmen. During the year, as always, the Commission was vigilant in carrying out its long established policy of keeping expenditures *well within* its prospective revenue.

It is obvious that a financial program of this kind is looked upon with favor by almost all sportsmen, who understand that under present war-time circumstances it is impossible to develop new programs as rapidly and extensively as many have desired.

The balance in the "Game Fund" as of May 31, 1941 and May 31, 1942 is explained in "Analysis of Game Fund Balance", Table Number 4, which appears directly below Table Number 2.

The Commission maintains this satisfactory financial condition by basing its expenditures on a conservative license sale plus the average income from other sources. This is done with a definite understanding that any surplus money accruing to the credit of the "Game Fund" from the sale of licenses in excess of the budget estimate shall not be expended during the year in which collected, but shall be held in reserve until the following year for budgetary purposes. This additional amount always swells the balance in the Game Fund at the end of the year. However, when such money is combined with the amount necessary to cover commitments (money which has actually been spent but not yet checked out), and the total of these items is deducted, what appeared to be an unusually large balance has been reduced to the regular operating reserve.

### War Time Reserve

As early as June 1, 1941 the Commission felt that a "Special Reserve" should be created for use during the war to compensate for anticipated loss of revenue due to decreased license sales. Accordingly, when the 1941-42 budget was established $107,200 was set aside as a special reserve, which was increased to $147,825 on December 1, 1941. On June 1, 1942 this amount was further increased to $300,000. This amount as will be noted is over and above the regular "Operating Reserve" of $346,478.08. Furthermore, it would be most fortunate, indeed, if it should be unnecessary to use any of this special reserve during the war, as it is reasonable to predict that part of this money will be required for the first or second post-war years for capital expenditures (major equip-

ment, building supplies, etc.), over and above the amount which can be allocated from current revenue. Because certain supplies and equipment are on the war emergency list, and will remain there for the duration, it is obvious that these needs have and will continue to accumulate. The all-time record license sales during 1940 and 1941 made it possible to create this extraordinary reserve and still have sufficient funds available to carry on the normal functions of the Commission.

### Value of Game Taken

While the efficiency of conservation programs is no longer measured entirely by the pounds of game in the bag at the end of the day's hunt, the table below showing the estimated value of game taken, compared with the funds expended, reveals some interesting figures.

| | 1940-1941 | 1941-1942 |
|---|---|---|
| Estimated Value of Game ..... | $10,621,294.80 | $5,198,300.00 |
| Estimated Value of Raw Furs ..... | 875,000.00 | 1,175,434.82 |
| Total Value of Game and Raw Furs ..... | $11,496,294.80 | $6,373,734.82 |
| Expenditures ..... | $ 1,485,190.20 | $1,433,415.24 |

In arriving at the above figures we estimated the value of game at forty cents (40c) per pound. During 1940 the hunters bagged a total of 26,553,237 pounds and during 1941, 12,995,750 pounds.

### Other Direct Values

The story told in the preceding paragraph is based on something tangible, but there is an angle to happy days afield which is an intangible asset and cannot be evaluated in dollars and cents. That angle "the call of the great-out-of-doors" by its very magic seems to pull men together under varying circumstances—the lunch hour at the shop, around the cracker barrel at the country store—months ahead of the opening of the hunting season to lay plans for their yearly adventure, which takes them into the open spaces to find retreat from the daily grind. Obviously after enjoying the release, comradeship, etc., these men return to their homes better equipped to carry on their chosen work.

It can be truly said that the conservation program is not an end to itself, that it is not a selfish enterprise, as the hunters in pursuit of their favorite recreation make a direct contribution to the business and agricultural prosperity of our great State. It is said that they spend annually more than $30,000,000 for guns, ammunition, hunting clothing, gasoline, boarding, etc.

### Capital Investments

Since the Commission started to purchase State Game Lands on a small scale in 1920, which program was greatly accelerated in 1927 when the seventy-five (75c) cent increase in the license fee was set aside for the creation, acquisition and the maintenance of State Game Lands, and subsequently the purchase and development of the game farms, its capital investments have increased from less than $50,000 to nearly $4,000,000.00 as of May 31, 1942, the details of which, excluding obsolete equipment disposed of, appears below:

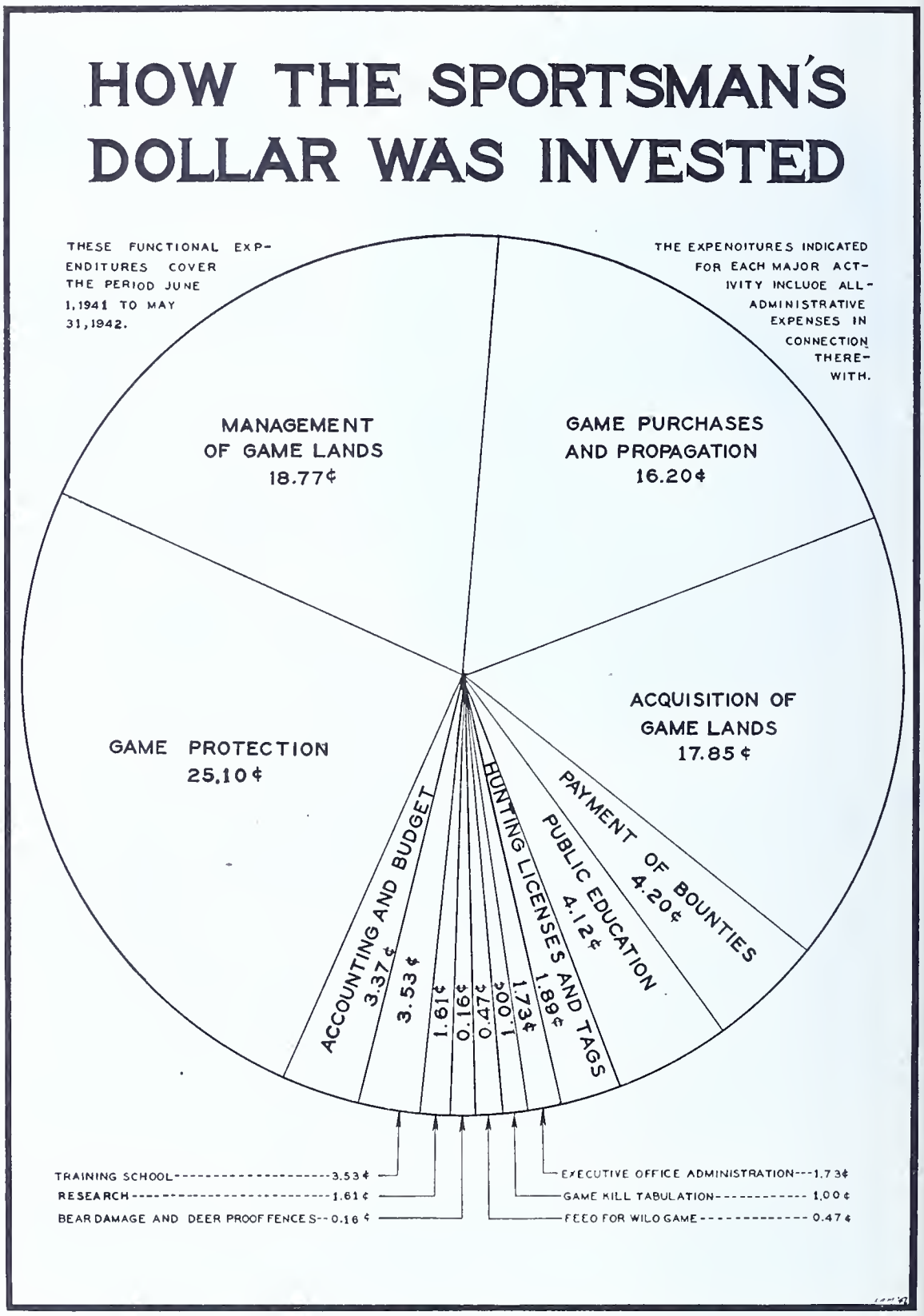



**TABLE No. 1**

**STATEMENT OF INCOME AND EXPENDITURES**

**December 1, 1919 to May 31, 1942**

**(22½ Years)**

| | | |
|---|---|---|
| Income ..... | $24,291,799.45 | |
| Total Expenditures ..... | 23,442,561.33 | |
| MAJOR FUNCTIONS: | | |
| Protection Expenditures ..... | 7,216,161.47 | (30.8%) |
| | 68,571.62* | |
| Land Purchase Expenditures ..... | 3,357,558.36 | (14.6%) |
| Land Management Expenditures ..... | 3,768,042.29 | (16.1%) |
| Game Farm Expenditures ..... | 1,717,816.44 | ( 7.3%) |
| Game Purchase Expenditures ..... | 2,008,560.63 | ( 8.6%) |
| Bounty Expenditures ..... | 2,537,095.80 | (10.8%) |
| | 68,571.62* | |
| Totals for Six Major Functions ..... | $20,605,234.99 | (88.2%) |
| All Other Expenditures ..... | 2,768,754.72 | (11.8%) |
| Grand Total for All Purposes ..... | $23,442,561.33 | ( 100%) |

*Land bought and subsequently sold to Department of Forest and Waters.

### TABLE No. 2

### SUMMARIZED FUNCTIONAL EXPENDITURES

The expenditures of the Commission during the fiscal year ending May 31, 1942 have been subdivided into major activity groupings as follows:

| | | Part of Dollar |
|---|---|---|
| **GAME PROTECTION** (Salaries and Expenses incident to Law Enforcement, Game Feeding, Game Distribution, Maintenance of Division Offices, Assisting in enforcement of Fish and Forest Laws, and other field activities, but excluding cost for Training School and Feed for Game) .. | $ 359,798.95 | 25.10c |
| **MANAGEMENT OF GAME LANDS** (Salaries and Expenses of Refuge Keepers and other employes incident to maintenance and development work on 1,009,905 acres of purchased and leased Game Lands and 1311 Game Refuges, and fixed charges in lieu of taxes) ..... | 269,023.63 | 18.77c |
| **ACQUISITION OF GAME LANDS** (Including title and survey work, mostly capital investment) ..... | 255,772.33 | 17.85c |
| **GAME PURCHASES AND PROPAGATION** (Including expenditures for equipment and operating four State Game Farms, and wild game transfer) ..... | 232,180.09 | 16.20c |
| **PAYMENT OF BOUNTIES** ..... | 60,249.00 | 4.20c |
| **PUBLIC EDUCATION** (Including Game News, Motion Pictures, Exhibits, General Bulletins, etc.) ..... | 59,088.37 | 4.12c |
| **TRAINING SCHOOL** (Training of Officers) ..... | 50,626.30 | 3.53c |
| **ACCOUNTING AND BUDGET** (Including Legal Advertising, Mailing and Storeroom, issuance of Special Permits, General Printing, etc.) ..... | 48,233.27 | 3.37c |
| **HUNTING LICENSES AND TAGS** ..... | 27,145.68 | 1.89c |
| **EXECUTIVE OFFICE ADMINISTRATION** (Executive Office salaries and expenses, and expenses of Commissioners, also includes inter-office communicating system and refurnishing Executive offices, which are capital investments) | 24,841.20 | 1.73c |
| **RESEARCH** (General Research and Experimental Activities) | 23,050.60 | 1.61c |
| **GAME KILL TABULATION** (Including expenses incident thereto) ..... | 14,324.06 | 1.00c |
| **FEED FOR WILD GAME** ..... | 6,735.92 | 0.47c |
| **BEAR DAMAGE AND DEER-PROOF FENCES** ..... | 2,345.84 | 0.16c |
| TOTALS..... | $1,433,415.24 | $ 1.00 |

### TABLE No. 3

### ANALYSIS OF GAME FUND BALANCE AT PERIODS INDICATED BELOW

| | May 31, 1941 | | May 31, 1942 | |
|---|---|---|---|---|
| Balance in State Treasury to Credit of "Game Fund" ..... | $1,279,876.96 | | $1,454,987.78 | |
| Add: Advancement Account for Payment of Bounties ..... | 130.00 | | 40,000.00 | |
| | $1,280,006.96 | | $1,494,987.78 | |
| Less: Expenses Chargeable to this period but paid by State Treasury after May 31 .... | 42,123.09 | | 39,530.54 | |
| Funds Available ..... | | $1,237,883.87 | | $1,455,457.24 |
| Less: Amount Reserved from Previous and Current Budget Allocations to cover Commitments for Land Purchases, and Other Items Chargeable to Current Fiscal Year ..... | $ 254,806.12 | | $ 247,081.48 | |
| Less: Amount Allocated and Committed for Budgetary Purposes for Ensuing Fiscal Year ..... | 637,900.00 | 892,706.12 | 561,897.68 | 808,979.16 |
| | | $ 345,177.75 | | $ 646,478.08 |
| Less: Amount of War Time Reserve ..... | | ..... | | 300,000.00 |
| Net Operating Balance Available ..... | | $ 345,177.75* | | $ 346,478.08* |

* Approximate amount required for Operating Expenses each year after May 31 until revenue from sale of licenses becomes available in the Fall.

| | |
|---|---|
| State Game Lands ..... | $3,357,670.76 (a) |
| Buildings on Game Lands .. | 180,744.00 (b) |
| State Game Farms (including lands, buildings, farm and propagating equipment) ..... | 310,867.84 (b) |
| Training School (including buildings and equipment) | 32,470.50 (b) |
| Current Equipment (including automobiles, trucks, tractors, graders, etc.) .. | 102,393.69 (b) |
| Total ..... | $3,984,146.79 |

In addition to the regular operating expenses of the Commission, money must be allocated from current revenue for maintenance, development and utilization of these capital investments in order to secure the maximum benefits. For details covering these expenditures, please refer to Tables 3 and 4 on Pages 9 and 10 of this report.

### Use of Tables

The tables which accompany this article are comparable to those previously published, thus making it possible for the reader readily to compare like expenditures with past years. Those sportsmen desiring only condensed information will refer to the chart "How the Sportsman's Dollar was Invested", and Tables 1, 2 and 3, while those desiring detailed information will study Table No. 4. While this approach makes the annual statement more voluminous, it is generally agreed that the results obtained justify the additional space required.

### Audit of Financial Affairs

Under the provisions of the Administrative Code the Department of the Auditor General is charged with the responsibility of auditing all State Departments, Boards and Commissions and submitting a report thereof to the Governor of Pennsylvania. The Commission's accounts are audited annually.

### Licenses Issued

As already explained, the backbone of the "Game Fund" is the monies paid into this fund by sportsmen themselves to perpetuate their sport. The table below gives the licenses issued by years from the enactment of the Resident License Law in 1913:

| *Year* | *Resident* | *Non-resident* |
|---|---|---|
| 1913 | 305,028 | No Record |
| 1914 | 298,972 | 462 |
| 1915 | 262,355 | 532 |
| 1916 | 290,422 | 662 |
| 1917 | 315,474 | 588 |
| 1918 | 311,290 | 478 |
| 1919 | 401,130 | 1,128 |
| 1920 | 432,240 | 1,725 |
| 1921 | 462,371 | 1,761 |
| 1922 | 473,735 | 2,126 |
| 1923 | 497,216 | 2,328 |
| 1924 | 501,572 | 2,558 |
| 1925 | 521,855 | 3,190 |
| 1926 | 520,574 | 3,468 |
| 1927 | 501,622 | 4,879 |
| 1928 | 437,727 | 1,190 |
| 1929 | 505,103 | 4,823 |
| 1930 | 530,392 | 6,009 |
| 1931 | 572,779 | 8,964 |
| 1932 | 537,451 | 5,251 |
| 1933 | 524,337 | 4,966 |
| 1934 | 568,666 | 6,024 |
| 1935 | 606,469 | 8,460 |
| 1936 | 534,573 | 7,124 |
| 1937 | 598,261 | 8,357 |
| 1938 | 654,146 | 7,584 |
| 1939 | 658,852 | 9,047 |
| 1940 | 666,420 | 12,748 |
| 1941* | 676,349 | 10,785 |

* Preliminary report subject to slight change.

TABLE NO. 4
STATEMENT OF REVENUE AND EXPENDITURES—PENNSYLVANIA GAME COMMISSION
FISCAL YEAR JUNE 1, 1941 TO MAY 31, 1942
REVENUE

| | | |
|---|---|---|
| Balance in State Treasury to credit of "Game Fund" June 1, 1941 | $1,279,876.96 | |
| Add: Advancement for the payment of bounties | 130.00 | |
| | $1,280,006.96 | |
| Less: Unwarranted requisitions chargeable to year ended May 31, 1941 | 42,123.09 | |
| Funds available June 1, 1941 | | $1,237,883.87 |
| Receipts during period: | | |
| Net Revenue from Hunters' Licenses | $1,452,460.34 | |
| Game Law Fines | 57,883.21 | |
| Special Game Permits | 14,919.00 | |
| Interest on Deposits | 5,786.80 | |
| Forest Products from Game Lands | 23,281.23 | |
| Skins Sold | 3,079.51 | |
| Unserviceable Property | 1,585.81 | |
| Rentals | 1,351.82 | |
| Publications | 8,634.31 | |
| Contributions from Federal Government | 79,062.25 | |
| Miscellaneous Revenue | 2,944.33 | |
| Receipts credited to Game Fund during year | | 1,650,988.61 |
| Total credits during year, plus balance at June 1, 1941 | | $2,888,872.48 |

EXPENDITURES

| | Executive Office & Division of Accounting and Budget | | Propagation Purchase & Distribution of Game | Game Research | Law Enforcement | Refuges and Lands | | Public Information | Total | |
|---|---|---|---|---|---|---|---|---|---|---|
| | General | Bounties | | | | Acquisition | Management | | | |
| Salaries | $40,304.47 | $6,620.00 | $22,681.02 | $3,760.59 | $195,525.85 | $13,987.61 | $78,439.75 | $13,940.00 | $375,259.29 | |
| Traveling Expenses of Salaried Employes | 2,065.11 | 1,141.31 | 5,357.05 | 2,135.37 | 92,230.12 | 767.25 | 20,329.12 | 3,835.77 | 127,861.10 | |
| Deputy Game Protectors: | | | | | | | | | | |
| Wages $18,306.55 | | | | | | | | | | |
| Expenses 10,942.15 | | | | | 29,248.70 | | | | 29,248.70 | |
| Wages: | | | | | | | | | | |
| Labor Cutting Fire, Refuge and Boundary Lines, Road Repairs, etc. | | | | | | | 45,588.03 | | 45,588.03 | |
| Labor at Game Farms, etc. | 5,263.79 | 95.77 | 48,990.11 | 6,545.65 | 11,804.04 | 224.49 | | 2,164.31 | 75,088.16 | |
| Cooperative Farm-Game Program | | | | | | 843.19 | 14,654.43 | | 15,497.62 | |
| Purchase of Game | | | 68,077.17 | | | | | | 68,077.17 | |
| Feed for Game | | | 39,550.83 | 933.26 | 6,735.92 | | | 12.00 | 47,232.01 | |
| Express and Cartage | 51.91 | 30.93 | 3,027.42 | 180.10 | 1,157.07 | 6.61 | 729.90 | 587.20 | 5,771.14 | |
| Purchase of State Game Lands (Title and Survey included) | | | | | | 233,680.89 | | | 233,680.89 | |
| Fixed Charges in Lieu of Taxes | | | 115.70 | | | | 32,766.23 | | 32,881.93 | |
| Building and Construction | | | 7,548.64 | 152.85 | | | 521.22 | | 8,222.71 | |
| Repairs to Buildings, Grounds and Equipment by Contract | 78.97 | 28.60 | 92.94 | 356.08 | 9.40 | 20.54 | 915.14 | 123.25 | 1,624.92 | |
| Training of Officers | | | | | 33,750.87 | | 16,875.43 | | 50,626.30 | |
| Equipment | 5,225.01 | 266.58 | 5,722.26 | 390.14 | 641.49 | 609.50 | 11,271.91 | 782.91 | 24,909.80 | |
| Miscellaneous Supplies | 1,481.71 | 49.40 | 20,885.24 | 467.77 | 5,606.34 | 98.50 | 18,209.14 | 4,390.77 | 51,188.87† | |
| Motor Equipment, Passenger Cars, Trucks, Tractors, etc. | | | 535.70 | | | 468.01 | 6,424.36 | | 7,428.07 | |
| Motor Supplies | 507.24 | | 1,908.84 | 105.81 | 328.90 | 302.40 | 9,860.78 | 283.00 | 13,296.97 | |
| Light Power and Fuel | | | 3,917.47 | 464.36 | 218.86 | | 368.75 | | 4,969.44 | |
| Insurance | 334.72 | 26.70 | 428.58 | 48.21 | 1,307.51 | 122.21 | 1,741.04 | 81.28 | 4,090.25 | |
| Postage, Telephone and Telegraph | 8,513.98 | 1,339.11 | 712.25 | 171.62 | 11,487.28 | 132.61 | 2,996.96 | 1,881.92 | 27,235.73 | |
| Rentals—Monthly Auto Storage, etc. | 112.30 | | 1,774.10 | 99.40 | 3,175.00 | 2,727.50 | 19,080.19 | 1,260.50 | 28,228.99 | |
| Bounty Payments and Grants | | 50,447.50 | | 6,000.00 | | | | | 56,447.50 | |
| Refunds of Receipts | 41.90 | | | | 544.00 | | | | 585.90 | |
| Game-Kill Tabulation and Expenses incident to checking Lists | 14,324.06 | | | | | | | | 14,324.06 | |
| Fees: | | | | | | | | | | |
| Attorneys, Medical, Taxidermy, etc. | | | 37.00 | 15.00 | 7.40 | 200.00 | 6.10 | 2,294.63 | 2,560.13 | |
| Deer Proof Fence, Damage by Bears | 2,345.84 | | | | | | | | 2,345.84 | |
| Other Maintenance Services and Expenses | 1,033.94 | 39.07 | 132.41 | 1,114.43 | 961.18 | 84.66 | 1,249.78 | 227.70 | 4,843.17 | |
| Newspaper Advertising | 2,952.88 | | | | | | 112.53 | | 3,065.41 | |
| Printing, Binding and Paper | 4,141.99 | 1.68 | 141.01 | 24.01 | 783.55 | 732.36 | 1,825.98 | 26,888.88 | 34,539.46 | |
| Printing Hunters Licenses, Tags and Misc. Forms (thru Dept. of Revenue) | 27,145.68 | | | | | | | | 27,145.68 | |
| Administering State Employes' Retirement System (thru Dept. of State) | 964.55 | 162.35 | 544.35 | 85.95 | 4,762.26 | 764.00 | 1,932.29 | 334.25 | 9,550.00 | |
| TOTALS | $116,890.05 | $60,249.00 | $232,180.09 | $23,050.60* | $400,285.74 | $255,772.33 | $285,899.06 | $59,088.37 | $1,433,415.24 | $1,433,415.24 |
| Funds Available May 31, 1942 (Please refer to Table No. 3 and notes below, for explanation concerning an analysis of this balance) | | | | | | | | | | $1,455,457.24** |

* This item inclues $6,000 for Cooperative Research at Pennsylvania State College.

** FROM THIS AMOUNT MUST BE DEDUCTED $1,108,979.16 FOR THE PURPOSES INDICATED BELOW:

| | | |
|---|---|---|
| Amount reserved from previous and current budget allocation to cover commitments mostly for land purchases | $247,081.48 | |
| Amount allocated and committed for budgetary purposes for the year beginning June 1, 1942 | 561,897.68 | |
| Amount of War Time reserve | 300,000.00 | |
| Total deductions | | $1,108,979.16 |
| This leaves a net operating balance, (which amount is required for operating expenses each year after May 31, until revenue from sale of licenses becomes available in the Fall) amounting to | | $346,478.08 |

† Explanation of Miscellaneous Supplies $51,188.87

$20,885.24 Division of Propagation—for equipment and supplies, used in connection with the propagation, purchase and distribution of game; and maintenance and repairs to buildings on the State Game Farms.

$18,209.14 Division of Land Management—for materials and tools to operate W.P.A., D.P.A. and N.Y.A. projects; and maintenance and repairs at Game Land headquarters.

$5,606.34 Division of Law Enforcement—for uniform equipment for District Game Protectors; ammunition for controlling predators; and office supplies for the seven divisional headquarters.

$6,488.15 for miscellaneous office supplies; films for educational purposes; maintenance and repairs to the Research Station at the Loyalsock State Game Farm.

# FIRST AID IN THE FIELD

By L. M. Thompson, M.D.

***Dr. Thompson, Asst. National Director of First Aid, American Red Cross is back again this month with some excellent advice. Heed it.***

*Illustration courtesy the American Red Cross.*

A FEW days ago a big flight of geese went down the Potomac,—fully a hundred of them riding along with a strong tail wind and just whooping it up as they went over the National Airport. They broke ranks as an incoming plane circled too close to their line of flight, but promptly lined out again and were gone down river in their haste to get South.

That means the shooting season is upon us, and though the army of guns will be smaller than usual this fall because many of them are out for bigger game, there will still be plenty of shooting this year except in those districts where it has been prohibited by military order.

This year, more than ever before, we must take care to avoid accidents. We cannot afford to cripple our boys who are not yet of military age. We need the old chaps who are working at defense jobs. Men who shoot are usually also mechanical, and we need mechanics as never before. We can't take chances on having them hurt. We will have to be just that little extra careful that prevents accidents. If one does get hurt in the field, his life will possibly depend on whether somebody present has a working knowledge of First Aid.

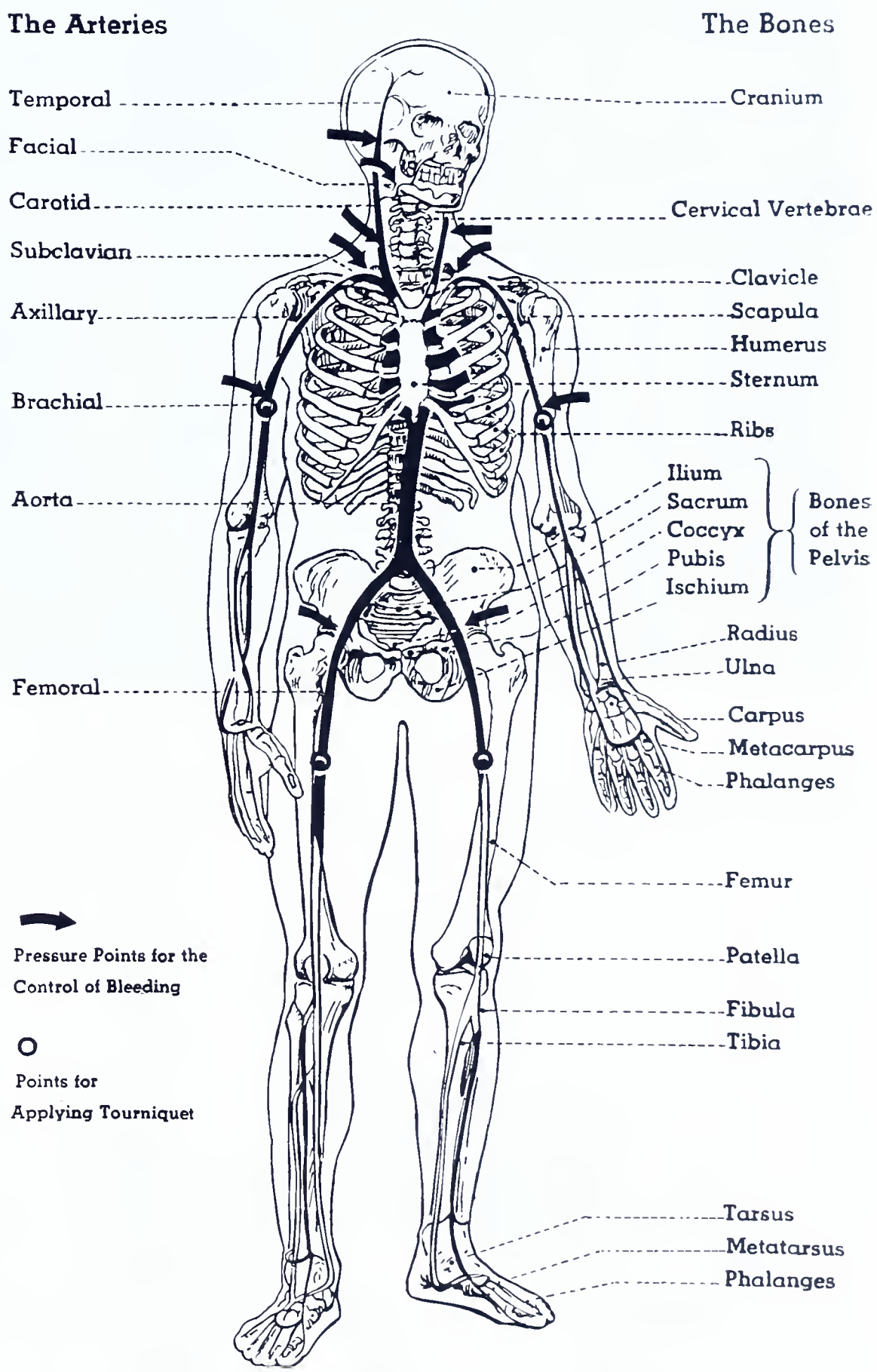
Since Pearl Harbor the American Red Cross has trained over four million Americans in First Aid, so that your chances of having competent help available are much greater than ever before. If you should get hurt, rely on trained persons before the doctor can reach you rather than taking the panicky advice of willing but untrained volunteers.

People without training naturally become excited. They know the victim needs medical aid and perhaps hospital treatment or operation, and because most of us are speed crazy, they can think of nothing but rushing to the hospital. They do not know about shock—that strange condition which comes to all of us after a serious accident and which may be fatal. They do not know that many of the persons who are rushed to the hospital have to spend hours getting over the dangerous period of shock before they can safely undergo operation, or even complete surgical dressing.

Shock is that state of physicial and nervous reaction which follows an accident resulting in pale face, moist forehead, bluish lips, a weak and rapid pulse, chills, nausea and weakness. It may go on to a more serious state with mental dullness or unconsciousness, complete loss of pulse, and such profound collapse that death may follow unless prompt first aid is given.

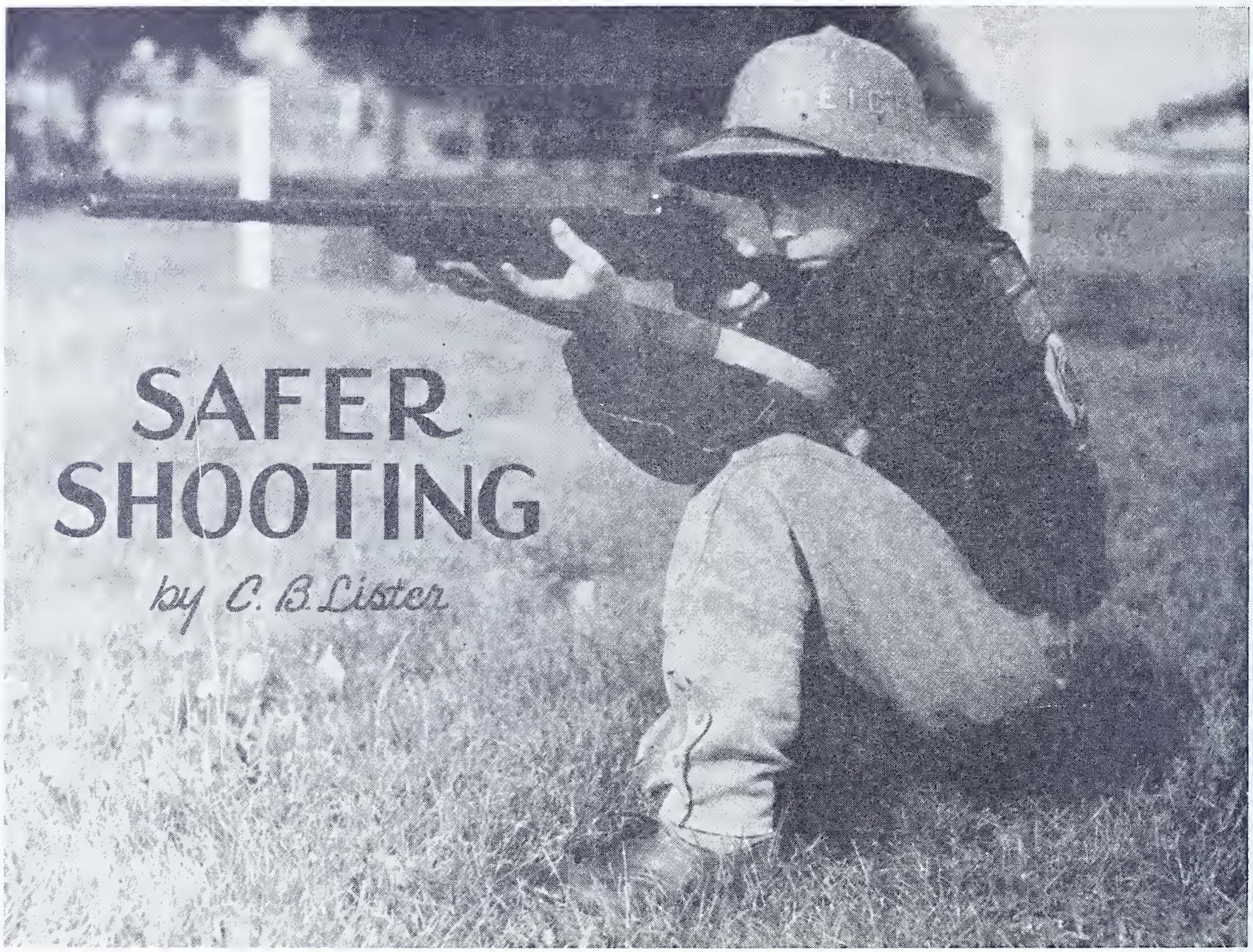
Serious shock nearly always follows gunshot wounds, and is especially dangerous in those cases where there is much bleeding or pain. Serious hemorrhage must be controlled

*(Continued on page 23)*




**First Aid Instruction Chart**

WPA DISTRIBUTED BY THE STATE DEFENSE COUNCIL




Tom Bayless, of Cleveland, Ohio, one of the youngest competitors in the Junior School of the National Matches, Camp Perry, Ohio.

*Reprinted October 1941* AMERICAN RIFLEMAN

AS REPORTED by the National Safety Council, accidents caused over a hundred thousand deaths in the United States last year. Motor vehicles were responsible for 34½% of these deaths. Falls—off stepladders, in slippery bathtubs, down stairways, etc.—accounted for another 25½%. Eight percent of accidental deaths were due to burns, 6½% to drownings, 5% to railway accidents of various kinds, and 3½% to leaving the gas jet open or to taking the wrong bottle out of the family medicine chest in the dark. *Firearms accidents were responsible for less than 2½% of the accidental deaths.* The remaining deaths were caused by a variety of accidents grouped under the heading "all other causes."

These figures will come as a surprise to a great many people. The average newspaper reader has the firm conviction that, next to motor vehicles, firearms are the most prevalent cause of accidental deaths. As target shooters, we have long been able to point to our sport as the safest in the entire American sports picture. Now come these figures from an unbiased source to reveal the fact that firearms, even in the hunting field and in the hands of improperly trained youngsters plinking and playing with guns in the home, are a very *minor* factor in the accident picture in this country.

*Training Begins with Juniors*

But as shooters we cannot afford to take a self-satisfied viewpoint based on these accident figures. Even though the automobile is seventeen times as deadly as the gun, even though slippery bathtubs and rickety stepladders are ten times as deadly as guns, even though the record of *target shooting* is almost unspotted with firearms accidents, the fact remains that 2400 men, women and children were accidentally killed with firearms in the United States during 1940. *Every one of those accidental shootings received far more space in the newspapers than did other accidental deaths occurring in the same neighborhood.* Each of these 2400 deaths represented one family and one neighborhood where in the future mothers will be afraid of firearms and will warn others against the "dangers" of owning a gun. So instead of being smugly satisfied with the comparative accident figures, it is urgently necessary that we as shooters do everything in our power, first, to make known to the public the true comparative figures, second, to take every possible step to still further reduce gun accidents.

To help us decide just what to do, we can break down the gun accident figures and discover some further interesting facts. The first thing we note is that *slightly more than half the gun accidents occurred in homes!* There were *more* accidental gun fatalities in *homes* than there were *out of doors!* Another interesting point is the fact that guns accounted for 8% of *farm* home accident fatalities and only about 3% of the accident fatalities in *city* homes. Finally, we discover that 25% of all accidental deaths due to firearms *involved youngsters eighteen years of age or younger and another 25% fall within the nineteen to twenty-four year age group.*

These figures point clearly to one conclusion. The education of the *youth* of our nation in the safe handling of firearms *is the most important single factor in any program designed to effect an immediate and drastic reduction in the number of firearms accidents.* The second lesson to be drawn from these figures is the fact that the farmer and his family need education in the safe handling of firearms just as badly as the city man and his son need similar education.

*Shotgun Worst Offender*

With the hunting season at hand, it is important that we obtain

*(Continued on page 23)*

# Grease for the Axis

Skunks provide much fat.

WE ARE going to win this war! We are going to put the skids under the Axis! But in order to do so we've got to *grease* those skids. This greasing can be done in many ways, and whether you believe it or not, our wildlife resources, especially our fur-bearing animals, can play an important part in doing so. We all know that Uncle Sam needs fat and needs it badly. So much so that housewives have been called upon to save every bit they can get for subsequent rendering.

Now with the coordinated efforts of fur dealers and rendering establishments, the trappers of Pennsylvania will have an opportunity to contribute thousands upon thousands of pounds of fat from the fur-bearing animals trapped this season. When this suggestion was first made to the Commission its merits were weighed carefully before any action was taken. Then when its tremendous possibilities were realized the Commission decided to encourage the movement.

First of all contact was made with all the fur dealers asking them what they thought about such a program and whether or not they would be willing to sponsor it locally. Their response was not only unanimous but tremendously enthusiastic. However, there were some who did not know where they could dispose of the carcasses.

Later we dug up a list of the rendering plants throughout the State, and at the same time asked our field officers to give us the names of other such establishments, whereupon all these were likewise contacted and the program explained to them. Their reaction was just as favorable as the fur dealers. Subsequently newspaper publicity was given the program State-wide both by the Commission and by the State Trappers Association and the individual fur dealers and rendering plants. Its whole success will depend primarily upon one thing, namely, that trappers cooperate by saving the entire carcasses of the animals they catch. And it is a purely voluntary program. In other words no one is entering into it with the idea of making a lot of money out of a patriotic gesture.

It will be up to the individual fur dealer to notify the trappers in his locality how he would like to have them cooperate. Some dealers may not want the entire carcasses; others may prefer them. The fact that some may not, for one reason or another, lack of facilities or help for instance, be able to accept or handle carcasses does not mean they must be wasted. In such cases the trappers should turn them over to the same collection agency or rendering plant that collects the housewives' kitchen fats.

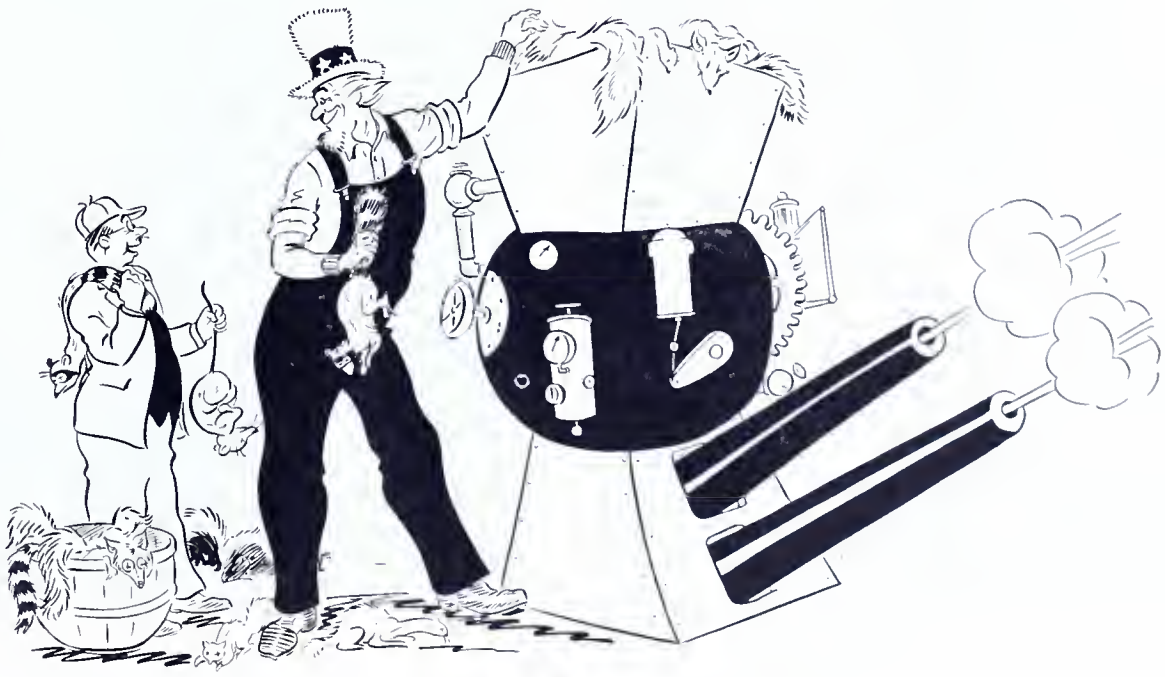
The larger fur companies prefer, in fact usually insist, that trappers ship only the *skins*. If the animals were shipped in the carcass there is always the possibility of them becoming spoiled, which doesn't help the fur one bit. Furthermore, large companies which receive pelts from hundreds of trappers annually could not possibly handle the animals in carcass because they lack manpower.

Under these circumstances trappers who have been in the habit of shipping *just the pelts* to large companies year after year, should *continue this practice*. In the case of local fur dealers, simply be guided by their instructions. If all trappers follow this advice the program is bound to be highly successful.

Dealers receive only from ½c to 1c per pound per carcass, and for fleshings anywhere from 3c to 4c per pound. This should compensate them for the cost of skinning and at the same time give them better hides. The trapper doesn't get anything out of the carcass, but by presenting the entire animal he relieves himself of the skinning problem, and this is something that must be taken into consideration very seriously because thousands of dollars are lost to the trapping fraternity every year because they do not know how to skin, flesh, and dry their pelts properly.

If the problem of holding the carcasses confronts a dealer he can contact any rendering company and they will figure out a method of holding them until they can be collected. Drums or barrels can be used for holding carcasses or fleshings. Here's a real chance for saving a lot of by-products from our fur-bearing animals. Not only the fat can be used but what is left after the rendering will no doubt make good fertilizer. It is said that the average size skunk will produce approximately three pounds of fat. Some probably produce four and others less, but three is a pretty good average.

In 1940-41 Pennsylvania trappers took over 250,000 skunks which, at an average of three pounds each, would be 750,000 pounds or the the equivalent of over 12 tank carloads of 60,000 pounds each. This just applies to skunks. If you figure all the fur-bearing animals, including mink, muskrats, beaver, opossums, foxes, raccoons, weasels, etc., and use the same average of three pounds of fat per carcass (which is a very conservative one you'll have to admit) times the over 750,000 fur-bearers of all kinds that were taken in 1940-41, it would mean over 2,250,000 pounds or an equivalent of over 37 tank carloads of 60,000 pounds each. Such a goal is worth striving for!—The Editor.



The more carcasses, the more fats and glycerine.

# DON'T MISS THE BOAT

*By Logan J. Bennett*

Reprinted *Courtesy American Field*

Sixteen point buck killed by Squire Charles Jacobs, Orwigsburg, during 1939 season. Spread, 26½ in. Weight 190 lbs. hog dressed. Mrs. Jacobs proudly displaying the splendid trophy.

ON THE opening day of the deer season in one of the eastern states a couple of years ago, one of the leading newspapers carried an editorial, by a political columnist, mind you, entitled, "The Slaughter of Mother Deer Begins Today." From the title of that piece of literary effort one could very easily ascertain what trend of thought the writer was going to try to put across. That particular man just happened to be one of many thousands who have built up an imaginary sacredness for female deer. It is doubtful if that same writer would peep a note of protest against women fighting in front line trenches.

In giving protection to all our game animals, we have outdone ourselves through practice and education in providing a bullet-proof barrier of legislation around female deer in many parts of our country. This protection policy, instead of being a flexible tool of game management, has become a stone around the necks of game administrators. From the sportsmen's side of the fence, the hunters are being cheated now and for the future by the unwillingness of many groups to realize the fallacy in such a policy.

Why has a doe-protection policy of past years become an almost unbreakable tradition of hoax? At the turn of the century, particularly in the eastern part of the United States, game species in many areas were decimated. This fact was particularly true of the white-tailed deer. Millions of acres of good deer range had been cut over and the deer shot out. Then sportsmen and game commissions got together and initiated good systems of law enforcement for the protection of game. Deer were purchased wherever they could be obtained and were released for stocking purposes. About that time our cut-over forests were sprouting. Those denuded mountainsides grew up into tangles of briars, brambles and blueberries, and into clumps of aspen, maple and beech. By 1915 many of our eastern forests had become jungles of low cover with tons of brouse within reach of deer. With good protection for the animals, such food and cover created an ideal production plant for deer, and, needless to say, for ruffed grouse, also. Most people at that time were convinced that the era of a plentiful game supply had passed and more drastic measures were taken to prevent the extermination of deer in the future. So, because the females produce the young and because antlerless deer could be distinguished very easily from antlered deer, the so-called "buck law" became the law in many states. In other words, the common thought was, "We must give complete protection to female deer in order that the species will be able to multiply and exist for future generations of sportsmen." Such a law at that time aided immeasureably in bringing about the fast recovery of deer populations. But the law worked so well that we became oversold on female deer protection. We liked the results so well that we became like the miser who could never get enough gold.

How rapidly did the deer come back? The fast multiplication of the deer herds can be illustrated very easily by taking 1,000 bucks and 1,000 does and figuring the number of offsprings over a fifteen-year period. In fifteen years, if each doe bears 1½ fawns a year (average for does), and half of them are females, there will be about 200,000 female deer, plus males that escaped being shot. In the next five years such a population would increase to 1,500,000 females alone if catastrophe did not overtake them. Yes, right today, in many states the deer are at the point where they are beginning to pyramid into dangerous numbers.

But what was happening while the deer multiplied and their numbers reached into the hundreds of thousands? Those mountains that had been in briars and sprouts during the period 1915-20 were changing, too, by 1925-30. Those low plants that had provided good cover and food near to the ground where deer could reach it had now grown into the pole stage. Then, as the trees grew and began to close in, the foliage shaded out and the roots from the growing trees crowded out the brambles, briars, blueberries, and other plants utilized by deer, grouse, snowshoe hares and cottontails. Let us get a little more definite and really see what this change in the forest meant to the deer. Those early sprout growths and brambles furnished about 350 pounds of deer brouse to the acre—later, in the pole stage, there was only about ten pounds of brouse to the acre (these figures vary greatly according to site). Just what do these figures mean? Roughly, from November 1 to April 1 (five months) deer must consume about two pounds of brouse per day per 100 pounds of body weight merely to maintain their weight over winter. The average adult deer weighs about 145 pounds, live weight. On

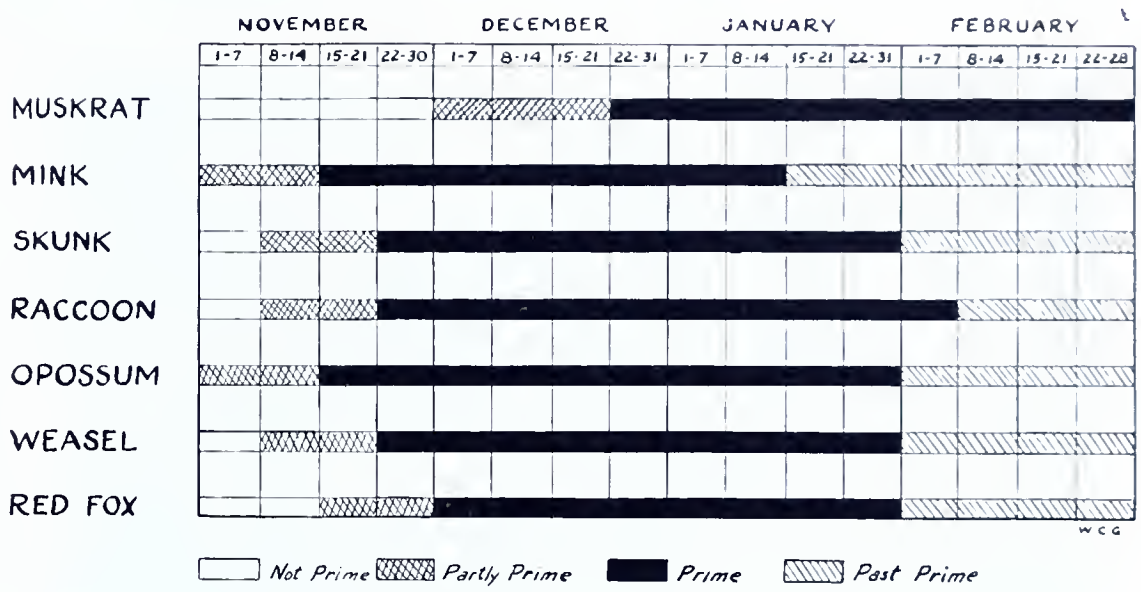
*(Continued on page 24)*

Photo by Capt. J. G. W. Dillin.

**Deer killed in November 1921 on Parry Sound, Ontario.**

# Primeness of Fur Animals in Northwestern Pennsylvania

*By William C. Grimm*




ALL authorities on trapping agree that it is poor economy to take furs at any time except when they are prime. If all trappers were to steadfastly follow that rule, and were to properly handle the prime furs taken by themselves, waste would be well-nigh eliminated and they would reap greater profits. It is an accepted fact that prime pelts find a more acceptable market and are often worth as much as two or three unprime pelts. The material presented in this article was gathered from personal observations of the writer and from interviews with a number of fur dealers and experienced trappers in Northwestern Pennsylvania.

### The Meaning of Primeness

The word prime means "that which is first in quality" according to Webster and a prime fur is naturally a first quality fur; it is the best. In even a most cursory examination of the pelt of a fur animal, it will be seen that there is a more or less dense covering of short hairs which are familiarly known as the *underfur* and that these are overlaid by the longer *guard hairs*. These guard hairs serve principally to shed water and they are present at all seasons.

(A contribution of Pittman-Robertson Project Number 8-R.)

The underfur is primarily for warmth and during the warmer seasons it is less dense than it is during cold weather. Naturally weather conditions influence the fur of animals. At the approach of winter the normal animal grows a dense coat of warm underfur in which the guard hairs are held upright. These new guard hairs, which are fully developed at the time cold weather sets in, are bright and often more or less silky in texture. They are responsible for the beauty of the fur. There are likewise seasonal changes in the skin of the animal. In the fall, before the animal has completed its change to winter pelage, the skin is generally dark in color—the so-called "blue pelt" which is characteristic of unprimeness—and the roots of the guard hairs often protrude through the underside of the skin. At the onset of cold weather the skin becomes a creamy-white color and the bases of the guard hairs become firmly imbedded.

The *prime* pelt therefore depends upon the condition and quality of both the skin and the fur. The characteristics of a prime pelt are as follows: the skin is creamy-white or pinkish in color, there is a dense underfur, and there is a good covering of fresh-looking, bright guard hairs which are firmly imbedded in the skin. *Unprime* pelts, usually taken too early in the season, do not measure up to these specifications; they are slaty-colored or "blue" and the fur is of poor or mediocre quality because it is not fully developed.

### The Period of Primeness

The accompanying chart has been prepared

*(Continued on page 25)*

Two prime raccoon pelts.

Unprime raccoon pelts of relatively small value.

Examples of prime skunk pelt (left) and unprime pelt (right).

# Get Your Money's Worth

Muskrats and minks, mainly. A nice December catch made several years ago by S. V. Sedlak, shown in photo. Sedlak is president of the State Trappers' Association.

EVERY year hundreds of dollars worth of fur-bearing animal pelts are *lost* to trappers because they don't know how to skin, flesh or dry them properly. This fact is concurred in by fur dealers all over the country; and because pelts are improperly handled the trapping fraternity, the raw fur trade, and in these days of all-out war, Uncle Sam himself suffers tremendous economic loss.

In nine cases out of ten the fellow who is really trapping for a living knows how to take care of his pelts properly, but the rookie, or the farm lad who is just running a line to pick up spending money, and there are many of them, have little if any knowledge of how to skin or flesh an animal properly, how to stretch or dry it or what equipment to use.

In the following paragraphs some simple advice is given which, if carefully followed, should result in the *savings* of hundreds of thousands of dollars worth of fur. It doesn't make any difference where you skin the animal you catch—whether on the trap line or at your headquarters—the same care should be used. Furthermore, the carcasses should be saved and turned over to the fur buyer for rendering into the fat which is so much needed in the war program. Many local fur dealers prefer the entire carcasses, especially from novice trappers, since they can then be skinned, fleshed and dried expertly at their own establishments. That, however, is a problem to be worked out locally by the fur dealers and the trappers. Large fur establishments accept only the skins. They are not in a position to handle carcasses. When animals are shipped in the carcass the fur is liable to become "tainted."

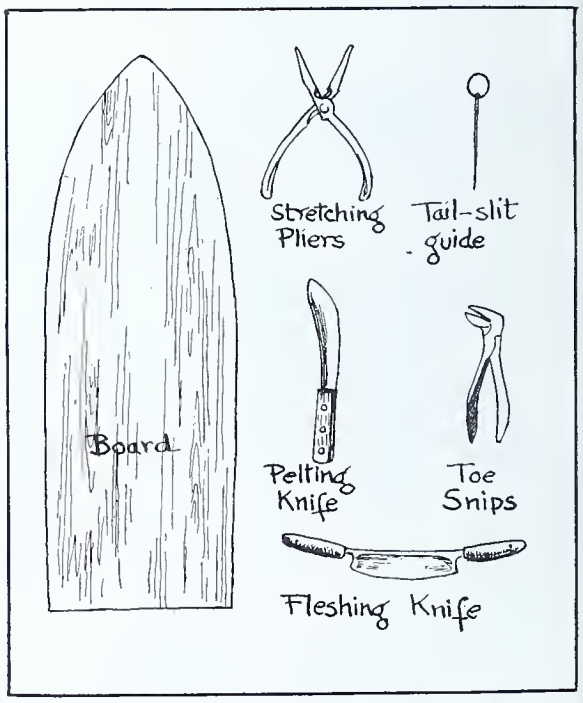
However, whether you turn in the whole carcass or not should not excuse you for not knowing how to prepare or dry a pelt properly; learn how. After all you are the one who is going to be at a disadvantage when you put your wares on display. If they are overstretched they will invariably show up natural thin spots that should be covered with under-fur or guard-fur. They should be stretched just right. If they lack neatness and trimness you are going to be just that much out of pocket.

Speaking of stretching: Unfortunately that word is too often taken literally by trappers and s-t-r-e-t-c-h-i-n-g boards are stretching boards in fact. When pelts are overstretched they are always misshapen and such eyesores by no means appeal to a dealer, who usually disqualifies them or offers little or nothing for them.

One of the first requisites of any trapper is a goodly supply of the right kind, size, shape of drying or stretching boards. Lots of trappers like—in fact they prefer—to make their own stretching boards. This challenges their individual skill and workmanship, makes them more interested in the game as a whole and results in a justifiable pride and a reputation for dependability. A stretching board should be as smooth and finished as possible. It is just as easy to make one right as wrong. A good idea of the shape and finish of various types of drying boards can be acquired by studying carefully the specifications given below.

### Other Equipment

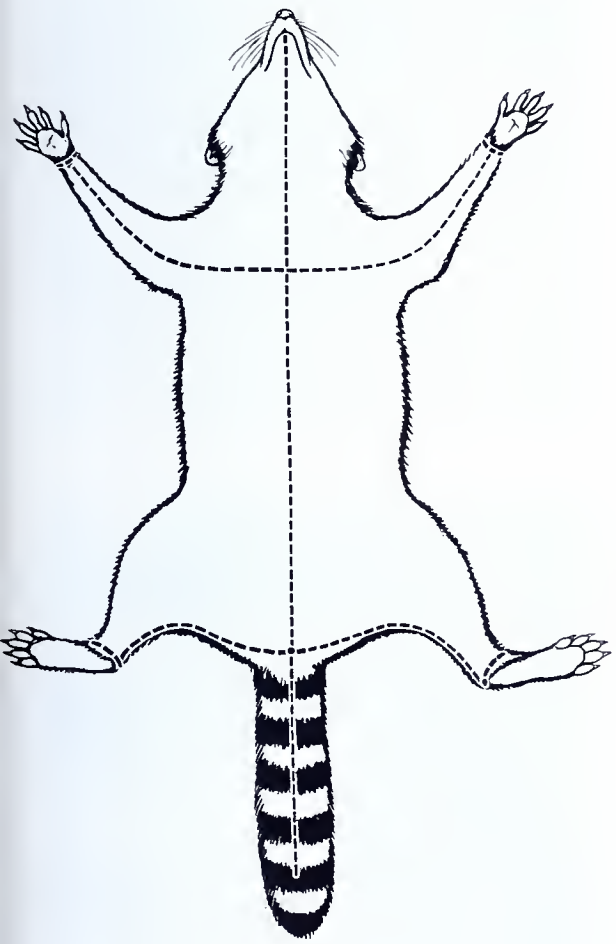
Naturally one of the most important parts of a trapper's kit is his knife. If he wants to do a good job of pelting he's got to have the right kind of knife—one equipped with a slitting blade, a skinning blade, and a small blade for general use. But he has to keep each of them keen and sharp. The blade must do its work smoothly and without friction else a damaged pelt will result.



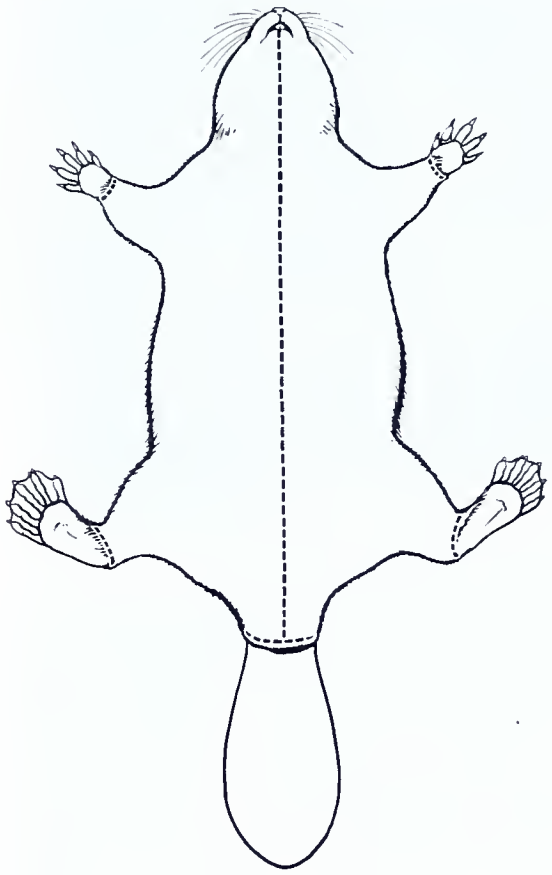
MUSKRAT

# MINK

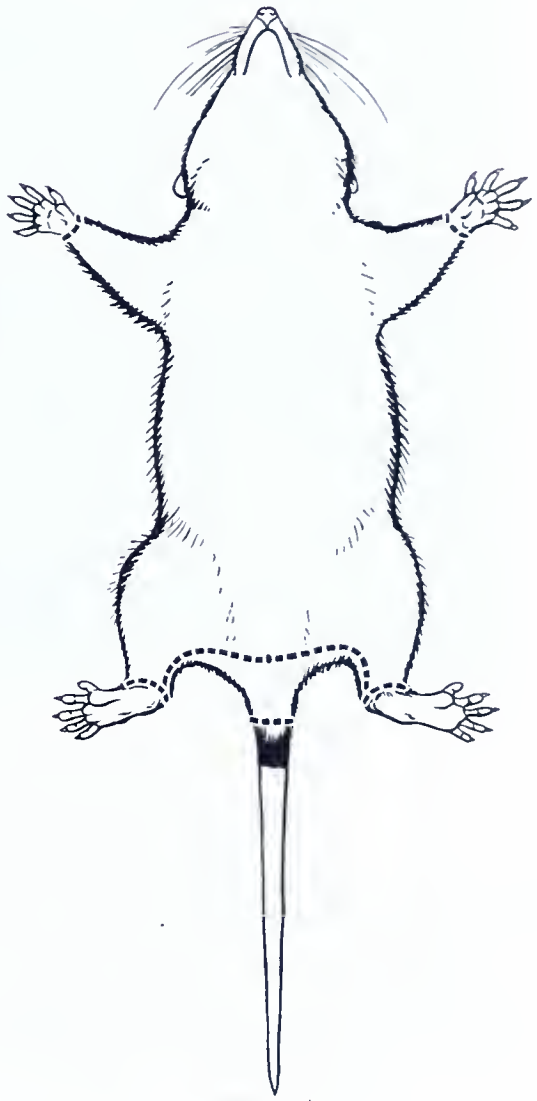
He must also have a diversity of fleshing boards; some small, some medium and some large. These are best made of 2 x 8 inch material four feet long, tapering 8 inches from the upper end to 2 inches. The upper side should be slightly rounded to fit the curve in the fleshing knife, which is a large curved knife with a dull edge and a handle on each side. Manufactured tail slit guides or metal troughs tapered to fit the tail are available on the market unless the supply has been limited as a result of the war effort, but a good substitute is an old umbrella rib, and you might remember that an old tablespoon is also handy for scraping and removing excess fat. With the few simple devices hereinbefore mentioned, along with tack hammer and some tacks some small sticks for removing tail bones, a pair of nippers for cutting toes and plenty of clean hardwood saw-dust to absorb the fat and dirt and give a good gripping surface on the pelt, a trapper, however inexperienced should do very nicely. Naturally experience is what counts, and if you get enough practice and heed the advice of your fur dealer you ought to be showing him some mighty fine workmanship in almost no time at all—that is if you are really determined to do a good job and get the most money out of it.



Raccoon.



Beaver.



Muskrat.

I neglected to mention awhile back, for the fellow who doesn't care to make his own stretching boards there is in the open market or rather was, wire or cut steel stretchers which can be purchased nominally. If these are selected carefully as to proper size, and you keep the edges free from rust good results will follow. Lots of trappers prefer these because they guarantee a uniformity in stretching with a minimum of effort. For safety's sake however, the finer furs such as mink, fox, etc., can be handled to the best advantage on wood drying boards for then there is no danger of corrosion or rust in case of neglect.

Any trapper who knows anything about the game at all realizes, of course, that there are two kinds of skins—cased skins and open skins. The open skins are slit straight down the belly, from the lower jaw to the vent, then slitting the front and hind legs to the body cut, after which the skin is carefully removed from the carcass. In Pennsylvania such skins would include the beaver and the

*(Continued on page 26)*

# OPOSSUM

# Log of Rattlesnake Shack

Left to right: The author, Marty, Harry, and Ed.

*By A. B. Champlain*

**This is the 6th of a series of Nature Stories by Dr. A. B. Champlain, State Entomologist.**

*December*

IT IS December. The opening season for white tail deer is on. We have the camp larder filled with good things, the wood pile is high behind the stove, and pegs along the wall are hung with the usual assortment of apparel. The alarm clock, aimed at some ungodly hour before dawn, rings us up before we get to sleep—almost; for of course we plan to be in position the opening minute of the first day. There is a hurried breakfast this first morning, the only meal during the hunt that does not count for much and then we start out into the brisk morning air. It is dark and as we meander along, the dancing beams of our flashlights conjure up monstrous moving forms that accompany us over the uneven trails.

Some of us, hoping to be warm on the stand, have clothed ourselves too heavily. As we go up, and up, we feel the perspiration trickling down our backs in protest. Later when we come to stand, the penetrating chill will more quickly find the bodies beneath damp garments.

At any rate we finally reach our station on the mountain bench. The taller trees entwined with trailing grapevines, contrast with the shrubbery growth, interspersed with boulders and the tangled skeleton tree tops, discarded during lumbering activities. Among this conglomerate mass may be discerned the game trails, forming irregular passages along the lines of least resistance, and it is here that we await events to come.

Soon shafts of sunlight filter into the gloom along the dark edge of the woods, and the deep silence of early morning is broken by sounds. First a faint call, like the rustle of a new breeze, then a far away voice to the left, or below, then to the right, as various groups or camps take up their drives. Soon a shot—perhaps a fusillade, then shouts. Finally crashing brush to the front, and light foot-falls that come closer—some frantic animal appears directly in your path, to stop and stare for the fraction of a second, eyes filled with uncertainties and doubt.

* * * * *

When Ed found Harry, the latter was excitedly dancing about the fallen monarch of the forest. It was Harry's first buck. "He looked as big as an elephant coming through the woods. My hair began to prickle and my heart beat so loud I thought he would hear it. I tried to hold steady, swallowed my chewing gum without realizing it and fired."

Well here he is (see photo.—Harry holds tightly to his gun), at least 200 pounds with a magnificent eight point rack. The four husky nimrods were about played out when they finally got him back to camp.

This deer must have had a long eventful life in the bush, for he was marked and scarred over his body from many earlier skirmishes, but here his adventures ended.

Ed remarked afterward,—"he was so tough you couldn't 'stick' a fork in the gravy."

Among the amusing incidents during the deer hunts over the years, was the case of the big doe who frequented the bottom land below the camp. She had never been disturbed as far as we were concerned, and often came to camp with her offspring to feed upon our flowers and apples, while we watched from the window.

Since our entrance to camp was a popular place for hunters to leave their cars, many drives were staged from this point. Sometimes as many as thirty automobiles were parked here, and on one occasion we counted fifty khaki clad lads, toting their guns up and down the first quarter mile of the old road past the shack. What they expected to find was a mystery to them as well as us.

However, the creek bottom land was driven by each new gang or group, perhaps as many as a dozen times a day, and to make it interesting for them, our old doe would race ahead of the drivers, seemingly enjoying the game as much as they. After a number of years of this mutual sport, the doe season came along and she lost her life to some thrilled deer hunter.

Interesting to recall is our experience with the tree climbing deer of the wild grape vineyard. It is cold, almost zero, and there is some snow on the ground. The sky is gray and the woods dark and ominous. Our hunter sits on the gnarled stump of some

*(Continued on page 28)*

A deer hunting party at Rattlesnake Shack.

# Wild Dogs in Pennsylvania

*By H. L. Brunner**

Top. The chase led through valleys and over hills for seven miles before the cunning creature was finally tracked down and killed. This bitch and her litter of wild youngsters would have accounted for much livestock and game had they not been put out of circulation.

WHEN is a stray not a stray? That is the question. A great many people seem to think that every dog they see roaming the field is a stray dog. As a matter of fact the creature belongs to one of his neighbors and has either broken his leash or is out for his morning exercise. Within a very short time he will return to his domicile.

The stray dog is one which has been abandoned by some hard-hearted unthinking nit-witted motorist and left to forage for himself. After a few days of aimless wandering the animal will seek the shelter of some secluded spot. Hunger will gnaw at him and, self-preservation being the first law of nature, it is then that he will go forth and become a serious menace to wildlife. When this has been reduced to a minimum, he will seek easier prey, causing great destruction to livestock and poultry. During this period of time, he has acquired cunning, and knowing the ways of man is therefore more wily than the fox or wolf. He is seldom seen during the daytime, and then only during the early morning or late afternoon.

During his nocturnal wanderings he puts forth every effort to find a mate and usually succeeds. In due course of time a litter of pups is born and, it is then, after the weaning period, that they range far and wide in quest of food for their young.

A few years ago, the writer as law enforcement officer had his attention called to the fact that a dog was seen traveling along a ridge at certain periods during the day. Aided by the District Game Protector and several deputies, a search was made and a den was located. Employing the use of picks and shovels, digging began, and long before the end of the hole was reached, there was considerable growling and snarling far beneath the surface. When the end of the den was reached, lo and behold four pups, approximately six weeks of age, were found. Though quite young they made a determined effort to bite their captors.

The depredations which are caused by wild dogs when roaming in packs is considerable at times. A farmer in the mountainous area of a nearby county reported to the law enforcement officer a few months ago that he had suffered the loss of two young bulls and ten sheep killed, and six sheep injured, in one night while the animals were in pasture. A posse was organized to scour the entire region, and in the vastness of the hills lairs were found in which the dogs lived. They had been at large a long period of time and had gone wild. The hunt resulted in the killing of fourteen dogs. During the trailing of the animals, the men came upon a spot which bore mute evidence of a life and death struggle between one or more of the dogs and a deer, and the deer became the victim. There were also many skins of rabbits in the locality, indicating that they, too, had fallen victims to the wild canines.

During the month of December 1940, in a good tracking snow, the writer came upon the tracks of a large dog which had been seen in that locality for some time. Accompanied by four residents in that territory, the chase led through valleys and over the hills for seven miles, and ended only when darkness came, and of course in favor of the dog. One month later, the writer again came upon his tracks and after collecting ten sportsmen from a nearby club, used the tactics employed in deer hunting by placing men at

*(Continued on page 28)*

* Dog Law Division, Pennsylvania Department of Agriculture.

**Deer chased to water by dogs.**

# NIGHT HUNTER'S EQUIPMENT

A 'coon hunter should be able to see in the dark. If he had eyes like an owl he would'nt bark his shins so much.

*By Paul P. Prugh*

A GREAT deal may be said on the subject of the night hunter's equipment. Of course, different opinions exist as to what is the most practical and efficient.

We will mention first, the clothing of the night hunter, the main objective of which is to provide warmth, and keep the hunter dry. Starting at the feet, I find the all rubber hunting boot to be the most satisfactory for night hunting, because of the fact that the grass and weeds are usually wet with either dew or rain. I have the rubber bottom, leather top, the all leather, also the all rubber high-top. The rubber bottom, leather top is fine if you do not have to do much wading; the all leather for early Fall and dry weather; but for all weather hunting, the all rubber, light weight, with heavy woolen socks is my most practical boot.

Next, the pants or breeches. I find the regular duck hunting breeches the most satisfactory, because they are in a great measure resistant to water and snagging. A light pair of ordinary trousers under them may prove comforting on a cold, frosty night.

The coat or jacket should be for warmth, waterproof, and as light weight as possible. Personally, the jacket type is more suitable than the hunting coat, as it can be buttoned in snugly around the waist and does not readily catch on the underbrush. Warm shirts or sweaters may be worn under the jacket to suit the weather, to be removed and placed in the game pocket of the jacket should the hunter find himself too warmly dressed. As for myself, I would rather be a little too warm than to stand around and shiver.

The hat or cap may be to suit the individual's taste, depending on whether a head light is used.

All in all, the main objective in the night hunter's clothing is to provide warmth and dryness, and at the same time be light of weight so as not to be burdensome.

We will next mention the light, which I believe to be the most important item in the night hunter's equipment. The type of light, electric, carbide, or whatever, may also depend on the individual taste, also pocketbook. I believe the head light the most satisfactory, thus leaving the hands free for other uses. For my own use, I prefer the carbide light with, of course, a good three cell flashlight with focusing lens for shining.

A little tip on the care of the carbide light. If you would have a good light, clean your reflector with a soft cloth after every hunt and remove all unburned carbide, and water before putting your light away. The carbide carrier of the flat pocket type is most convenient, as it is compact, will hold enough supply for an all night hunt and fits the hip pocket much the same as a tobacco can. A small bottle of water, enough to fill your light at least once, is very convenient when caught away from a stream. Although the battery or flash light is very fine, the carbide light will prove more economical over a season's hunt.

The gun, another necessary item, can be selected from various types. The shot gun is probably the best for bringing a coon down out of a tall tree, although a smaller, lighter gun will be easier carried through the brush at night. A good 22 cal. rifle using long or long rifle cartridges will usually serve the purpose and be much easier handled at night. A tip for night shooting. Touch up your front sight with red enamel and it will show up much better for night shooting. A small hand gun 22 or 32 cal., which can easily be carried in a pocket, is sometimes very useful if you wish to climb a tree and shoot at close range. So much for the guns.

Another thing which has caused me a great deal of grief until this past season, which might seem an unimportant item, is the dog lead or leash. Heretofore I used the ordinary dog chain or lead, and with large hounds, eager to be off, found it very hard on the hands. In fact, I could not lead my pair of hounds, on the double-snap, without gloves. This year I procured a leather woven leash which is very plyable, easy on the hands and very satisfactory.

There are many other gadgets optional to the hunter, but a few which I find very practical and useful at times are: a good pocket knife, waterproof match box, police whistle (for calling the dogs), waterproof license carrier, a length of light rope, a small roll of bandage (just in case), an extra felt, and tip for your light.

This should pretty well cover the night hunter's equipment, although there are numerable other articles which I may not have mentioned, all optional to the individual hunter.

The fire kills all the feed.

# FIRE TALK

*By J. W. Stevenson*

THIS year, the forest fire season was a bad one in my area. We had many bad fires and most of them were of incendiary origin.

This is a matter which concerns the hunters almost as much as the foresters. While the Game Commission and the Department of Forests and Waters are two separate and distinct divisions of the state government, they honestly try to cooperate. The hunters should cooperate with the foresters also. The state forests provide a large percentage of the deer and bear hunting in Pennsylvania. Anything which happens to the state forests is bound to affect your hunting and mine. All hunters who want good hunting should help protect the forest from fire.

During the course of my investigation of the "set fires", it became apparent that some of them were set by hunters themselves, in a false belief that fire would improve their hunting.

Of all the downright idiotic notions that hunters sometimes get, this one takes the fur-lined leather medal for sheer dumbness. The idea, if any, of these hunters, was that fire would burn up the brush and make it easier to drive through and let them see farther. Let us look at a burned area and see how wrong they were.

First; the fire burned the leaves on the ground and most of the dead stuff, both standing and down. It did not burn any of the green stock, only killed it and left it stand to turn hard and brittle. This sort of dead brush is much harder to get through than green growth which bends and is not so apt to tear clothes. Also when this dead stuff breaks, it makes a crack which a deer can hear a mile away. Just try to get through it without breaking any of it. True, it kills the leaves, and you can see farther that first summer, but so can the deer, and leaves are seldom a problem in hunting season except scrub oak leaves which I will mention later on.

Second; the fire kills all the feed and the deer are less likely to "use" there than before.

Third; after a fire, sprout growth comes up much quicker than before the fire. This sprout growth is mostly composed of scrub oak, black locust, black gum and laurel. As any hunter who has ever fought his way through it knows, this stuff is much worse than before the fire. Where the growth is mainly scrub oak, the leaves hang on late into the winter and make visibility zero. It does not provide good deer feed either.

If fire is kept out and a thick patch of forest allowed to grow, the large trees will gradually shade out of the scrub oak, laurel, etc. Their place will be taken by less dense young growth of better feed variety. This will improve hunting and the forest at the same time, and as the large timber trees are cut out at intervals, new clumps of young growth will provide the best deer feed there is.

I hope it is now clear to all hunters who burn out the woods to improve hunting that they are really holding it back. For those who are too stubborn to admit they are wrong, real sportsmen will have to take a hand and show them the error of their ways. This is your woods. It is your hunting that is being spoiled, so do something about it. If you know any of these fellows who are setting fires, get after them. If you can't stop them by talking to them, report them to the district forester or a fire warden. We, who have to fight those fires, will not lose any time in putting a stop to it if you will only tip us off.

Other reasons for "set fires" are: spite work, to get work fighting fire; to make huckleberry patches; and just to see a fire.

Spite fires are silly. The person who sets them is hurting himself as much as the other fellow. He is also taking a chance of injuring the person or damaging the property of someone against whom he has no spite. In fact he is damaging everyone's property including his own. State forests belong to the public. In addition to this he is risking a heavy fine and jail.

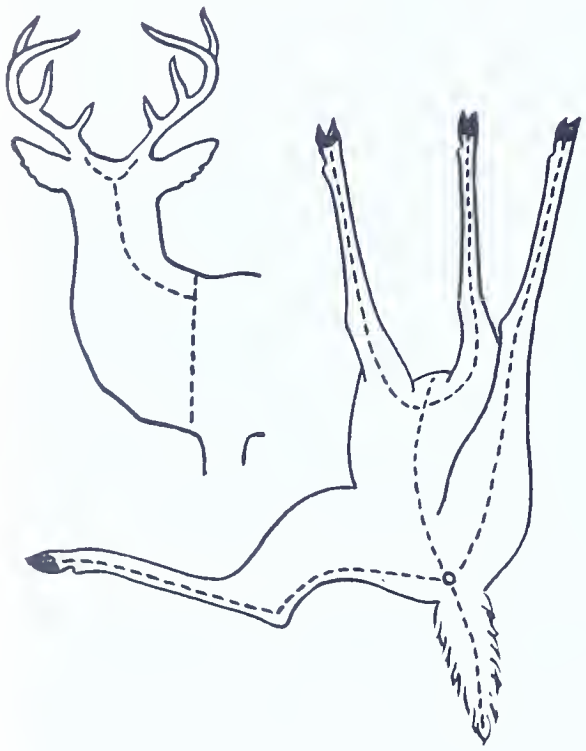
The fellow who sets fires to get work fighting them is plain nuts. There is plenty of easier and better paying work than fire fighting.

The huckleberry picker who sets fires does not know if he is going to bring in a patch of huckleberries or scrub oak. There are

*(Continued on page 29)*

# Hunters! Save Your Deer Skins

*(Continued from page 5)*



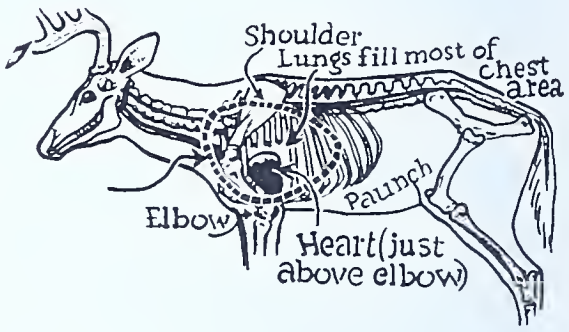
corporate other details of this campaign in Game News. If not, we urge our readers to be governed wholly by the instructions released to sportsmen's organizations and broadcast throughout the newspapers and over the radio before the deer season opens.

Fellow sportsmen, this is a serious business. Let's get busy and finish it up. I see a lot of tin cans lying around with the wrappers still on and the ends not punched out, meaning that there are still a lot of people indifferent to the requests, and there have been many, for the people of this country to punch the tops and bottoms out, take the labels off and mash them—just a little extra effort—but I wonder how many of them are going in for that extra effort. In army camps soldiers who work in the kitchens have to save all the tin cans and salvage them in the manner requested by the Government. What matter if its an old tire, a tin can, or a deer skin? If Uncle Sam can use it, let's give it to him.

**Open cuts in skinning a deer or bear for a flat skin are shown in opposite illustration. The best way is to hang the animal solidly by the hind legs, then pull down hide. For antlered or horned heads, make opening cuts as indicated by diagram.**

**WHERE TO SHOOT**

**Note carefully the diagram below. Aim for the vital spots. Let your slogan be "One Shot—No Cripples!"**




# Where Did the Turkey Go?

*(Continued from page 6)*

In December, usually after a snow accompanied with freezing temperatures, turkeys shift to their wintering area. The winter range is much smaller than that of the fall, depending on the amount of snow on the ground and the temperature; snow combined with freezing temperatures reduces the range. An area where turkeys winter usually has some or all of the following properties: (1) An abundance of mast such as acorns, grapes (Fig. 3), black gum, flowering dogwood, and greenbrier; (2) a large percentage (50 to 75 per cent) of the mixed oak forest type; (3) numerous spring runs that provide open areas in deep snows; (4) a southern exposure; (5) conifers composing 5 to 20 per cent of the area (coniferous growth provides excellent protection during adverse weather conditions); (6) location at the base of ridges or in protected areas; and (7) freedom from molestation by man.

Turkeys require a variety of habitats during a year. As the season changes, food and cover conditions also change; consequently, the birds shift their range to an environment that best meets their requirements in any particular season. They need a large range to satisfy their demands. Mosby (1941) estimates 15,000 acres as the smallest unit for efficient management, while Blakely (1941) states that 5,000 acres is the minimum, and 15,000 to 20,000 acres approaches the biological ideal. The number of acres required depends on the type of habitat. Sportsmen should not be surprised when turkeys leave a tract of 400 to 500 acres of timber.

The daily or weekly range is also interesting, and it is affected by a multitude of factors. Weekly range refers to the circuit of travel that the birds make in going over their range during any particular season. Turkeys have regular ranges that they travel, especially during the late summer, fall, and winter. It may take them from two or three days to over a week to complete their circuit of travel, depending on local conditions and the time of the year. They may be absent from a particular range for a number of years; however, if they are liberated in such areas or if they return naturally they usually utilize the same range again if conditions have not been changed. The amount of traveling that the birds do in a day is called the daily range. Daily travel depends on a number of factors that are more or less synonymous with the weekly range.

Some of the known factors that affect the daily or weekly range of turkeys are food, number of birds in a flock, time of the year, weather, and disturbance. There may be other important factors that are not known at present.

Food, undoubtedly, is of major importance in determining the area covered by wild turkeys. The distance that they must travel to obtain necessary and sufficient food appears to govern the range. Some evidence exists which indicates that they eat as much as possible before a storm, especially in the winter. As a rule, turkeys require food every day.

**Figure 2.—A turkey dusting site.**

The number of birds in a flock influences the distance that they travel. A large flock usually covers a greater area than a small flock; however, an old gobbler who travels by himself may cover more territory than an entire flock of turkeys.

The composition of the flock is important. A hen with a young brood does not travel to the extent that a band of gobblers travels.

Topography plays a part in range determination. If a country is relatively flat and open, turkeys usually range to a greater extent. If a particular section is confined by natural barriers such as high ridges, the ridges tend to restrict the movement of the flock.

Interspersion of forest types is important. Turkeys require various types of vegetation found in open areas, open timber, conifers, and other cover. The farther they must travel to include such sites in their area, the greater the range of the birds.

The time of year is significant in determining the area inhabited by wild turkeys. In the fall birds travel approximately twice the distance that they do in late summer, while in the winter the range is reduced.

Turkeys are rather consistent in traveling over their area on a regular schedule if they are not disturbed. Inclement weather or disturbance by man or by other means breaks the regular routine. During stormy weather they do not travel extensively. In a rain the birds usually stand around and feed only to a limited extent. Snow also affects the amount of travel, and high winds in the Fall of the year usually cause the birds to seek sheltered areas. In 1936 Leon P. Keiser, Superintendent of the state wild turkey farm, had about 1,000 turkeys in a Virginia pine field during a 25- to 30-inch snowstorm.

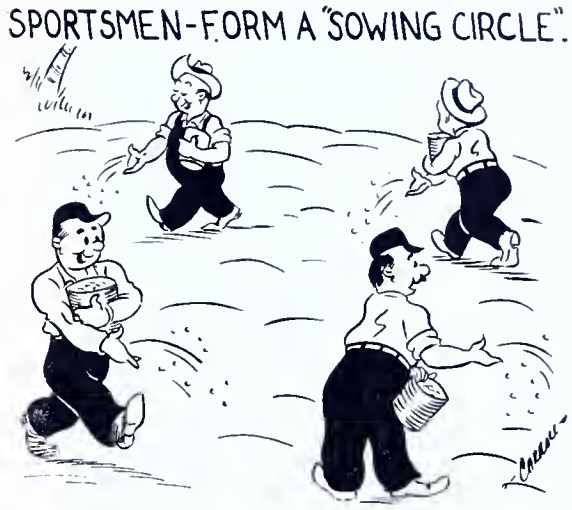
*(Continued on page 28)*

# First Aid in the Field . . .

*(Continued from page 11)*

at once. Every one who shoots should know the pressure points where the fingers can flatten an artery and check the flow of blood while the necessary dressings are being prepared. If a sterile gauze compress and firm bandage are properly applied, bleeding will be checked in most cases. Remember that elevation of the arm or leg will reduce the pressure locally and help to check bleeding. In rare cases a tourniquet may be needed but remember that a tourniquet shuts off all circulation, and unless it is loosened every fifteen or twenty minutes the limb will die,—gangrene will set in, and an amputation will be necessary. Never use a tourniquet unless the bleeding cannot be checked in any other manner.

Gunshot wounds frequently cause the fracture of a bone. These are compound fractures, and will be followed by serious infection unless prompt surgical attention can be obtained. But all fractures must be immobilized with splints before any attempt is made to move or transport the victim. Therefore you should know how to apply improvised splints. For fractures of the long bones of the arm and leg the best form of immobilization is a traction splint, but this can only be applied by a trained person. So you see how necessary it is to have first aid training if you are going off on a hunting trip.




PLANT A FOOD PLOT FOR WILDLIFE.
PA. GAME COMMISSION

Far better than needing to do first aid is knowing how to prevent accidents. Remember that every gun should be handled as if it were loaded and cocked. It is the gun that "wasn't loaded" that kills people. When you pick up a gun, always open the breech to see if it is loaded. Automatics are especially dangerous. Many people have been hurt because someone "unloaded" the magazine but forgot the shell in the barrel.

Never aim a gun at anything or any person that you are not willing to shoot. Never fool with guns or point them in fun even if you are sure they are empty.

Be particularly careful in crossing fences. Open the action so that should you slip or get hung up on the wire the gun cannot go off. Do not carry a loaded gun in a car or a boat. Do not load until you reach the place where you expect to begin shooting. Better pass up the chance of an unexpected shot then to have an accident that will haunt you the rest of your life.

Watch out for obstructions in the barrel. Snow or mud in the muzzel may cause an explosion and will certainly ruin a good barrel even if no one is hurt. If a shell sticks and has to be extracted, be sure that the paper casing comes out with the metal part of the shell. This is an especially necessary precaution if you are using reloaded shells. Many of us will be reloading our shells this year, and will have to remember that they may stick in the barrel and may leave the casing behind when extracted. Also, never try to shoot anything under water, especially with the muzzle below the surface. You won't have any success and will probably ruin your gun or yourself.

But the most important thing to remember

*(Continued on page 25)*

# Safer Shooting . . . .

*(Continued from page 12)*

the right perspective by bearing in mind other facts which will prove surprising to most people. One such fact is that approximately 80% of all gun shot accidents in the hunting field are caused by *shotguns*. The much feared high power rifle is a comparatively minor offender. Another important point is the fact that approximately 70% of all gun shot wounds in the hunting field *are self-inflicted.*

From these supplementary figures we may draw the conclusion, first, that the shotgun shooter needs safety training in much larger doses than it has been so far fed to him. Second, that legislation ruling the high powered rifle out of the hunting field is one of the least needed and least effective means of reducing hunting accidents.

Out of this summary appears clearly the part which target clubs can play in reducing firearms accidents in the home and in the field. The tremendous importance of the organization and proper training of Junior Rifle Clubs becomes immediately evident. No further proof of the value of the training afforded by such Junior Clubs is needed than the fact that although 25% of all fatal firearms accidents involved children of eighteen years of age or younger, the entire nation-wide Junior Rifle Club program of the National Rifle Association is conducted year after year *without an accident of any kind.* No Junior Rifle Club member was involved in that 25% of the total gun accidents during 1940! Proper training of young men in the eighteen to twenty-four year age group would eliminate another 25% of our shooting accidents. These are men of the age who, with the proper approach, can most easily be "sold" on the idea of affiliating with a local rifle and pistol club.

Here, then, is a safety program, simple and practical, which promises without the aid of any other factor *to eliminate one-half of the annual shooting accidents.*

*Education, Not Legislation*

In our efforts toward gun safety we have not been governed enough by analysis of cold figures. Those figures show the need not of legislation but of *education.* Those same figures show that the education needs to start where the National Rifle Association has so earnestly endeavored to work—in the junior field. In local high schools, Y. M. C. A.'s, Boy Scout Troops, Junior veterans' groups and Junior farm groups lie the opportunity to accomplish a firearms safety mission which will produce immediate, tangible and material results.

Sponsor a Junior Rifle Club not merely because it will provide a source of fine recruits for the senior club, not merely because you will derive more pleasure from the first medal won by your protege than you have ever derived from winning a match for yourself, but more particularly *because the shooters of America owe it to themselves and to the shooting game to eliminate shooting accidents*— and the Junior Rifle Club is the most important single factor in the accomplishment of that great public service.—C. B. L.

Photo by D. L. Batcheler.
**Women make good, safe shooters.**

# Don't Miss the Boat . . .

*(Continued from page 14)*

Controlling a deer herd is only the first thing that must be done.

the basis of these figures, a square mile of forest in the sprouting stage could furnish over-winter maintenance food for a maximum number of about 515 deer. When the same area is in the pole stage there is only enough food to maintain the weight of about fifteen deer over winter. In both examples all the food would be taken. This in itself would be over-utilization. Maximum numbers of deer were used in each case to show how many could be fed by assuming that every available twig was eaten. In reality there are many acres on a square mile in winter that are unavailable to deer because of snow conditions. Now deer, just like cattle, require a given amount of food; and, likewise, only so many can be carried on a given area. A successful cattleman stays in business because he realizes that his pastures can carry only a given number of cattle. If his range can support no more than one cow to ten acres he does not graze it two cows to ten acres. If he did he would soon become an ex-cattleman.

Oh, yes, the antlers on the bucks became smaller and had less conformity as the herds increased and the range deteriorated. We began to hear about the heads in the good old days. The poorer heads were blamed on inbreeding and the dying out of the strong northern strain. Yes, it was always the good old rugged northern strain that could not stand the gaff. Oh, no—none but a few of the brave and hearty would admit that maybe food had something to do with the little pencil-shaped antlers!

Millions of acres of forest land in the east have grown into a less productive stage from a deer food standpoint. While this was happening, organized pressure groups prevented game commissions from opening antlerless deer seasons in time to save the deer ranges from becoming overbroused and, as a result, ruining the habitat for deer themselves. In addition, the overpopulated deer herds have drastically reduced the amount of grouse cover, eaten out snowshoe hare environment and depleted the cover and food for wild turkeys and many other non-game animals.

In most cases to date, antlerless seasons have been allowed from five to ten years *too late*. After such seasons many sportsmen relaxed and said to themselves, "Now we shall see if the game commission was right." When they went out the next year the common remark heard was, "The deer have all been killed out and the blankety-blank game commission is the cause of it all." What became of the deer? Of course, the herds were drastically reduced, but by no means were all the deer killed out. When you have five or six deer to the square mile you certainly get the idea of scarcity as compared to the time when there were fifty to sixty to the square mile in the same area. Those deer were utilized by sportsmen; and it is a good thing that they were, because most of them would have starved to death within the following winter or two. Today there are many areas in a good many states where the winter starvation losses are running higher than the kill by hunters, simply because the "buck law" has been unbreakable. Oh, no, a ten-man drive no longer puts out fifty to seventy-five deer on a single drive and the camps do not hang up the limit in a day and a half of hunting. In such areas there is one bright light—perhaps deer hunting will again become a real sport, requiring real skill to be successful. In addition, the grouse, turkey and rabbit hunting will get better as the forest recovers.

I had the good fortune not so long ago to spend a day with a veteran hunter in Pennsylvania. We were hunting grouse and my companion took me down a ravine in which he had flushed over fifty grouse on a fall day in 1919. He told me that at that time the trees and shrubs were only about shoulder high. There were tens of acres in that ravine grown up to green briar, blackberry and blueberry, along with dense sprouts of aspen, maple and beech. In other words, it was a perfect home for grouse. That same year the deer were just starting to come back. They, too, had an ideal home. About twenty-one years had passed since my friend had flushed those more than fifty birds. Those twenty-one years had changed the face of that ravine to such an extent that on our hunting trip a short time ago we flushed two birds in the same area and the cover was such that we figured we were lucky to have seen any grouse at all. The briars, brambles and blueberries were gone. The trees were about forty feet tall—in the pole stage. During the growing seasons the shade was so dense that the ground cover could not grow. What few plants that had managed to hang on had been exterminated by the enormous deer herd, most of which had starved out two years previously. My old companion confessed to me that day that at the time the deer herd was of enormous proportions he opposed an antlerless deer season with all his vigor because he did not realize what had happened to his hunting ground. The changes that had occurred in the 21 years came on soothingly slow; and he did not see the outcome until the grouse were almost gone, until he found his trout stream lined with the bodies of starved deer and until nature presented him a hillside of poles with only a hard-pressed remnant of wildlife. My friend ended up by saying, "The one gratifying thing about my poor judgment is that perhaps our experiences will enable sportsmen in other states to heed the advice of their game departments in time to save their food and cover for a variety of game instead of allowing deer to destroy all wildlife environment, even for themselves."

Do not get me wrong and start thinking that the solution to the game problem in an aging forest is to cut the deer population down. Controlling a deer herd is only the first thing that must be done. The real job of forest wildlife management begins after the deer are under control. To be productive, lands owned for wildlife must be of such a nature as to provide a home for the animals you are desiring to preserve and increase. A certain per cent of the acreage of an aging forest has to be cut, thinned, or both, in order to get sprout growth for brouse and to let in sunlight so that briars, brambles and other plants that are essential for grouse, rabbits and other animals can grow. Get behind your forestry department and aid them in getting greater timber utilization on your state forests. Usually a well managed forest, from a timber utilization standpoint, does not produce maximum numbers of game, but it is good game territory, nevertheless. Properly managed forest lands are far better game lands than unmanaged forest lands where no thought is given to utilization.

This subject of too many deer in an aging forest is a big topic to try to cover in a few hundred words, but in the future when your game department tells you that your forests contain too many deer, please take their advice, because too many of us have missed the boat already.

# Primeness of Fur Animals

(Continued from page 15)

from data supplied by twelve fur dealers and periodic checking of pelts taken by trappers in Northwestern Pennsylvania. It represents the average, or normal, state of primeness of the pelages. Seasonal variations, of course, may hasten or retard the condition of primeness. During the period indicated as *partly prime* some individuals may be fully prime while others will exhibit varying degrees of primeness but all are progressively becoming prime. It is only logical to assume that more fully prime individuals will be taken at the latter part of this period than during the earlier part. Primeness is progressive.

Following the period of primeness is a period indicated on the chart as past prime. Here, again, the change is progressive. Normally it represents the beginning of the change to summer pelage; the winter pelage becomes faded and worn, and the animals are often referred to as being "shedded" or "springy." Pelts of this kind do not find a ready market; they are past their period of maximum beauty and value.

*Muskrat:* The muskrat is the last of the fur animals to become prime and it is late in the winter before the period of maximum primeness is attained. Unfortunately, at this period, the mating season is approaching and the animals engage in vicious fighting, often resulting in a large number of damaged pelts. For this reason most fur buyers prefer to have muskrats taken during the winter months even though they are not fully prime. Animals taken during December are usually of good quality but they become progressively better as the winter advances.

*Mink:* The mink is first fur-bearer to become prime in the late fall and fully prime pelts are the rule by mid-November. Shortly after mid-January the quality of the pelts begins to decline and they are often spoken of as being "faded." By the first of February the quality is usually poor.

*Skunk:* Examination of pelts taken early in November shows that a high percentage are unprime; three out of four pelts taken before November 10 are usually unprime and of relatively low value (Fig. 1). After November 15 the quality of pelts improves rapidly and many are prime. About mid-February the quality rapidly declines and the animals look worn or "springy."

*Raccoon:* Animals taken before November 15 are usually very poor in quality and bring low prices. About 85 per cent of the pelts taken before mid-November are "blue" and unprime (Figs. 3 and 4). One good prime pelt taken later in the season will generally bring as much as two or three of these unprime pelts of similar size. Primeness ordinarily lasts until about the first week of February when the animals begin to look worn and "springy."

*Opossum:* The pelts generally become prime early and by mid-November are of good quality. The period of primeness apparently extends until early February after which the quality begins to decline.

*Weasel:* Pelts of weasels begin to prime after the first week of November and are fully prime by December 1. The quality of the pelts declines after the first of February and are generally poor after mid-month.

*Red Fox:* After mid-November the quality of fox pelts increases with maximum primeness during December and January. Shortly after the first of February the animals become worn or "springy" and the quality rapidly declines. The pelts of the Gray Fox are similar as regards their primeness.

Photo, Wm. Jackson.

**Furs arranged according to popularity. Left to right: Muskrat, skunk, opossum, brown and white weasels, raccoon, red fox, gray fox, and mink.**

# First Aid in the Field

(Continued from page 23)

is: Never shoot at anything unless you are sure what it is, and unless you are sure some other hunter is not in line with your fire.

And as a matter of manners, have a sportsman's respect for the rights of the owner of the land and for those who may want to hunt after you. Don't start fires! Timber is too valuable these days to have it go up in smoke. Farmers are too busy and too short handed to have to stop work to fight a fire started by your carelessness or your thoughtlessness. Forest fires help the enemy and ruin the shooting.

And don't cut wire fences or leave gates open. We need barbed wire for other purposes this year. We can't afford to have stock go astray, and we can't waste time hunting lost animals. Every animal is part of the national program to win the war.

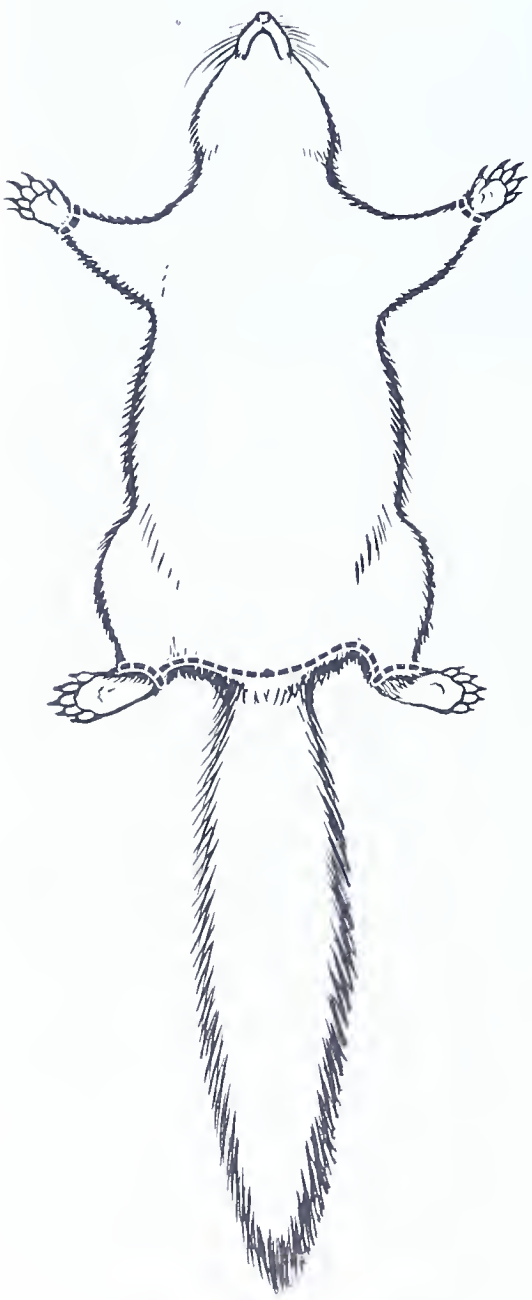
The military restrictions on shooting in certain areas may seem like a hardship if we live in those areas, and the rationing of tires and gasoline may keep us from getting to our favorite hunting spots, but let's remember that it will benefit us in the long run, for there should be much better shooting when we can get back there again because of the rest the game will have had, and the natural increase that should follow. I was in a restricted area in California a few weeks ago, and the quail were having a grand time —perfectly sure that nobody was going to bang into them.

There should be a marked drop in the number of hunting accidents this year, with fewer guns out, limited driving and reduced recreation time. But also we should all be more safety minded this year. So let's take extra precautions when we do get a half day off, and be sure that we don't need any first aid ourselves. And if you haven't the chance to go hunting how about spending some of your time taking a First Aid course, so that if someone should get hurt you will know exactly what to do before the doctor gets there?

**Alvin F. Bare, Bernville, with a nice 300-lb. bruin bagged in 1941 in Brown Twp., Lycoming County.**

# Get Your Money's Worth . .

*(Continued from page 17)*



Skunk.

raccoon. In the case of the beaver the animal should be slit only from the lower jaw to the vent.

Cased skins are removed by cutting down the back of the hind legs to the vent and then peeling off the skin carefully towards the head, keeping it always as free from flesh as possible. A sharp knife must be used but you must always be careful not to cut into the skin. Peel the skin from the front legs, cut the ears close to the body and use great care in skinning around the eyes, nose and mouth. Cased skins include foxes, minks, otters, skunks, opossum, muskrat, etc.

It is customary to cut the tails off mushrats, beavers and opossums and the feet off these as well as skunks and raccoons. The feet of other animals should be left on and properly skinned and dried.

One of the most important operations in preparing the pelt is that of fleshing. This requires not only the removal of surplus flesh but as much fat as possible. To prevent the pelt from staining you should be careful to wipe all blood stains from it as soon as possible after you skin it. Fat and muscle can be worked loose with the thumbnail and saw-dust and gone over with a spoon as I mentioned previously. The idea is to place the pelt over the fleshing board and work down with a knife, using plenty of saw-dust. Above all do not scrape too hard else you cut the hair roots and cause the hair to fall out. Every bit of fat should be removed, especially around the ears; if you don't it is likely to burn the fur and cause it to slip.

Hardwood saw-dust is the thing to have around—plenty of it. It absorbs the fat and grease and makes it possible to keep a firm grip on the slippery pelt. It can also be rubbed into the fur and then shaken out, thus cleaning it and giving it a fresh, glittering appearance. Never use salt or alum on fur pelts.

When you are ready to place the pelt on the stretching or drying board slip it on gently and pull, not stretch, it down to full length, then tack it. Be sure the belly is on one side of the board and the back on the other. Remember that a pelt which shrinks a little on the board is better than one that is stretched a little. Remember also that fleshed pelts dry quickly so it is very important to place them on the drying board as quickly as possible. Also, make sure that the ears, tail and legs are straightened out before you hang the board. Never hang them in a heated room or where they are exposed to the sun. They should be hung in a dry, dark spot, and air circulation should be provided if at all possible. By all means keep flies away. Never allow a pelt to freeze.

If you have a large number of skins to dry it might be a good policy to make a frame out of 2 x 4's or any scrap lumber you happen to have. Such a frame can be leaned against the wall and studded with nails to hold the number of skins desired. The skins can also be hung from nails in the rafters of the ceilings. The pelts should be inspected regularly to make sure they are drying properly, and if the tail and legs are not hanging straight they should be pinned down. The tails of foxes and other

Muskrat in water.

animals that are to be shipped "fur out" should be dried with other side out in a comparatively warm place for 24 hours. Then the pelt should be turned fur side out.

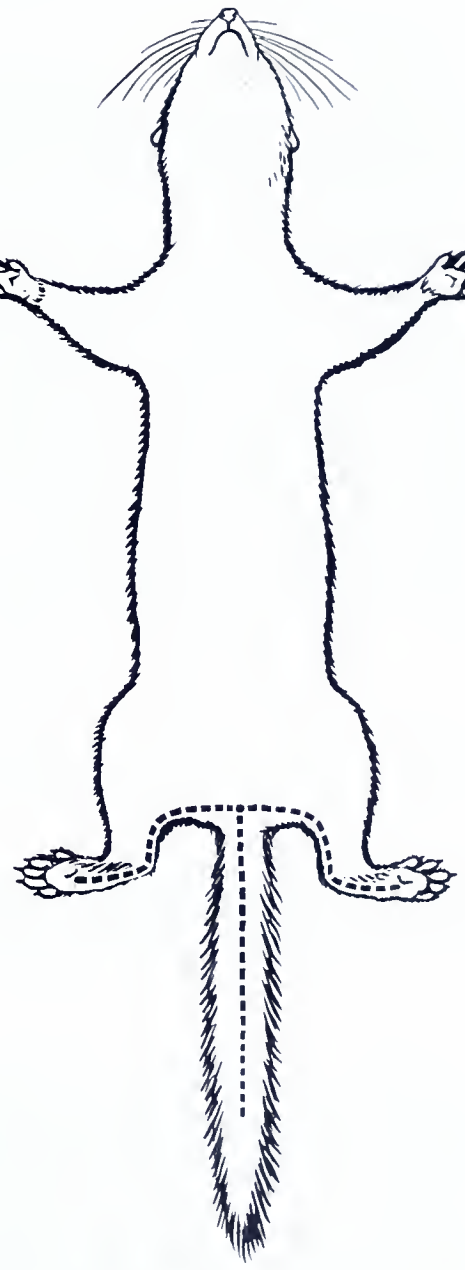
When the pelts are dry they should be removed from the boards and given a final cleaning. The grease should be wiped off all that had the leather side out, and in the case of those that have the fur side out they should be placed on a clean table or bench and the fur rubbed full of clean hardwood saw-dust. Rub it in gently so the guard hairs won't be damaged. When the grease is all cleaned out, shake the pelt well and lay it on a table and whip it gently with a small, smooth whip about the size of the little finger and about three feet long. If the guard hairs cling to the stick you are whipping too hard and pulling them out. Never wash the skin.

Improper shipping, like improper handling, loses many a dollar for the trapper. Green pelts or those that have not been stretched and dried should never be shipped. When packing skins they should be laid leather side against leather side or fur side against fur side and packed in cloth or burlap. Fine furs should be wrapped individually in absorbent paper or cloth before being packed into the bundle. Never use newspapers or any other printed paper lest the ink color the pelt. Skins should be packed flat and sewed tightly in bundles. The package should be made big enough so that the pelts can be laid out. If not, they will become all rolled up or creased and their full beauty will be lost. They should always be shipped by express or insured parcel post. The postal regulations, together with those required by the State, should be adhered to. Be sure and print your name and address on the label or tag.

Trapped muskrat being lifted by Thomas Sheffler, Pennsylvania trapper.

From the foregoing we have tried to impart some sound, practical advice—all of which is fundamental and can be supplemented by references to various trapping bulletins, etc., which can be acquired from the Federal Government, large fur houses, trap companies, and in some cases individual fur dealers. The job of skinning, fleshing and drying an animal is not particularly a hard one. It may be a little tedious, and require a little hard work if the job is to be done right, but after all, upon whether or not the job is done right, depends your reward.

We are assuming in the foregoing paragraphs that most of the fellows to whom we are offering this advice know how to trap, at least after a fashion. However, there are always a lot of newcomers, and while we cannot devote the space to propound all the techniques, etc., that such a subject involves we can, at least, include some of the fundamentals, supported by illustrations of various kinds which might be helpful.—The Editor.



Weasel.

# Log of Rattlesnake Shack

*(Continued from page 18)*

She stretched her neck and body, her forefeet high against the tree.

long since fallen forest giant, moving only his eyes to search out every light, every shadow for the moving object that might represent a deer. He has dressed warmly so he won't shiver away all the value gained by stealthy maneuvering for this moment's advantage. The tense minutes seem like hours. Cramps and "needles and pins" keep begging him to shift about. This is great "non-exercise" and should be practiced by persons needing calesthenics in patience.

At last there appears from nothing, first a new shadow—black, brown or blue; a moving shape quickly lost among other shapes and shadows. He sits tight, for it is a deer. It moves quite leisurely, as our deer has all the time in the world to go no place in particular. Now our hunter sees a head, ears, now all has melted into the landscape. Again a flash, and for a moment the switching tail resembles a squirrel on that tree trunk. Finally, four deer have been observed in vague outline, but with no visible horns. How nerve-racking to remain motionless for an hour and the deer have only moved a few yards. They are among the wild grape vines that stretch to the tree tops, entangling the branches with festoons of tentacles on which are borne hundreds of bunches of chicken grapes. The deer are searching beneath the trees for fallen bunches of fruit, which are frosted and delicious.

Now the hunter sees the old doe. She is standing upon her hind legs apparently pulling at the grape vines. She stretches her body and neck, with her fore feet high against the bole of a leaning tree and daintily tugs at the vine. Of course she has some intelligence. She harvests the high hung grapes instead of calling them sour.

Several hours of this and the deer have outlasted our hunter. To be sure, they have not scented him either. But he can identify no bucks and beginning to shiver and shake with cold and excitement, he must move. His gun ready, the hunter relaxes and takes a step from the log. Ah! They soon see that—and they're off.

Many such incidents might be mentioned concerning the hunts on Stony Mountain. However, they are but repetitions of what you have all experienced and we will stop here.

Outstanding features of our camp life in December, are the visits of various hunting groups or persons whom we know. Heavy

Our old doe would race ahead of the driver.

Meyers and the Clarks Valley boys, all expert hunters, always pay us a visit during their drives over Stony; while the old Tramway bunch, miners from upper Dauphin and Schuylkill Counties, were real friends in the old days when that camp was a flourishing Sportsmen's Organization.

Then our own boys, at one time or another members of the Pennsylvania Department of Agriculture, or other friends, enjoyed their hunting vacation at our camp. Many of them have scored "bulls eyes" and have "racks" to show for it—among them are John O. Pepper, F. M. Trimble, Prof. J. N. Knull, Dr. T. L. Guyton, Roger Baker, and Harry Liberato, while others have taken out their legal deer during the season. Finally our associations with Mark Motter, our Game Protector and his assistants leaves a pleasant memory for us "buckwackers" of Rattlesnake Shack.

# Wild Dogs in Pennsylvania

*(Continued from page 19)*

A 'nest' of wild dogs in a hollow tree. These creatures, because they once lived with man and learned to know his ways, are more fierce and crafty than their cousins, the foxes and wolves. They are bold and fearless and should be removed not only to save domestic and wildlife, but to safeguard human life.

strategic points which the dog would likely use for a crossing. After a four hour chase, he was driven past one of the watchers who ended his career with a beautiful shot at 150 yards with his .35 Remington. This dog stayed near a game refuge where pheasants and rabbits were abundant. He was well fed and weighed approximately eighty pounds. The accompanying photograph is the proof.

A few years ago, one of the writer's friends discovered a litter of pups beneath the roots of a large chestnut tree. He decided to keep one, believing that it would make a good watch dog. He kept it well fed and treated it kindly. The writer observed this dog when it was about 2 years of age, but noticed that it was shy and restless. A short time later the dog disappeared and was never seen again. No doubt he returned to the hills where his ancestors roamed, to become a renegade. It is the call of the wild.

# Where Did the Turkeys Go?

*(Continued from page 22)*

These birds did not touch food for eight days, although food was placed nearby. The weather at that time was extremely cold—below 0° Fahrenheit.

Disturbance by man or by other means is an important factor. Turkeys are prone to leave an ideal range if the annoyance is continuous. It is surprising to note how even minor disturbance causes turkeys to leave an area. The birds may return after a short period of time, depending on the amount of disturbance.

The writers hope that this brief discussion on the seasonal and daily or weekly range of wild turkeys will enable the reader to better understand the movements of these game birds. The explanation of any particular action of wildlife in general cannot always be given easily. The "why" usually involves a complication of factors. We may think that we know the answer to some problem, but only diligent and careful study will provide the solution.

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## Fire Talk

*(Continued from page 21)*

enough huckleberries in this state now to keep all the pickers busy for years and accidental fires will keep the supply well above the demand.

The fire bug, who sets fires just to see them burn, belongs in an asylum. Put him where he can do no more harm.

You hunters are a mighty army and you love your sport. With your help, we can stop these incendiary fires and so improve that sport. Give us that help and we will stop them.

## FIELD NOTES

"The one sure sign that Fall is at hand is that the young cock grouse are beginning to make their crazy flights. On September 30, when I came downstairs there was a grouse sitting on the windowsill, I walked outside and got up real close to it. Finally it flew over under my neighbor's porch and off towards the woods. I have had several other reports of grouse being seen around town of late."—Game Protector W. J. Carpenter, District 1, Division "E."

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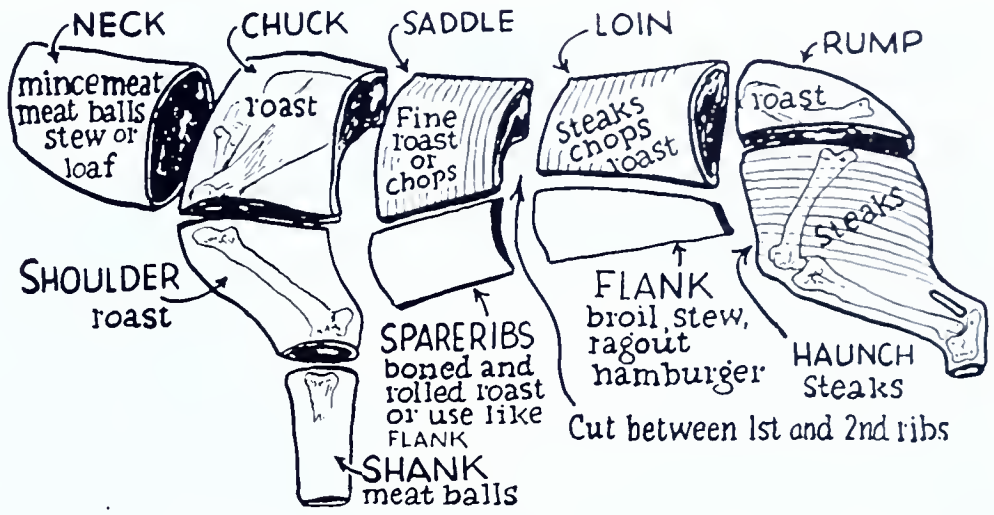
"Received a call from the east side of the city in regards to a nest of young rabbits. Upon investigating I found the nest was only about 40 feet from the house. It had been built in a small patch of high weeds. The owner was cutting the weeds when he uncovered the nest. After he discovered it he covered it with grass and left it alone. They were unable to see the female around during the day, but did manage to see a rabbit at the nest during the night. I judged the age of the rabbits at about ten days. Rather than move them I suggested we leave them in the nest for a few days. The next day I received a call saying they were gone. Either the female had moved them or else they had wandered away. So far as I know the nest was not disturbed by predators."—Game Protector Clair W. Dinger, District 2, Division "F."

# HOW TO BUTCHER YOUR DEER




Courtesy New York Conservation Commission.

**Dress out your deer at once then saw carcass in half down middle of backbone. Make cuts as shown.**

"Sometime during the summer (I don't recall the date) I was walking through a field here at home and came upon a large blacksnake emerging from a mole hole.

"I thought nothing of the incident at the time, but passing the same spot a month or so ago I noticed quite a number of egg casings scattered about. This was perhaps the work of a skunk, as about 30 inches of the burrow was dug up. Being somewhat curious I started to count the empty cases which were laying around in about a 25-foot circle (indicating perhaps an entire family of skunks were working on them). I counted 59 cases altogether, but numerous fragments would have accounted for a few more. Two cases still contained the embryos, so still being curious I removed them from the shells and was surprised to find them to be "milk snakes" which were fully developed and would probably have hatched within a few days. Whether this is an unusual number of eggs or whether two different species of snakes used the same burrow I cannot explain."—Anthony Skotak, Box 124, Blawnox, Pa.

"A short time ago in Heath Township a mother bear and three cubs were feeding on a man's apples and his dogs ran them about three hundred yards and put them up a tree. The bears were treed about noon, and the word soon spread about them being up this tree. Before long a large crowd gathered to view the animals, and continued to come up until we were able to arrive on the scene. After arriving, everyone was given a chance to look at the bears then all parties left. After this we left, but in about fifteen minutes returned to the tree to find the animals gone. All told the animals were up the tree about ten hours and were becoming very uneasy."—Game Protector Lester J. Haney, District 9, Division "E."

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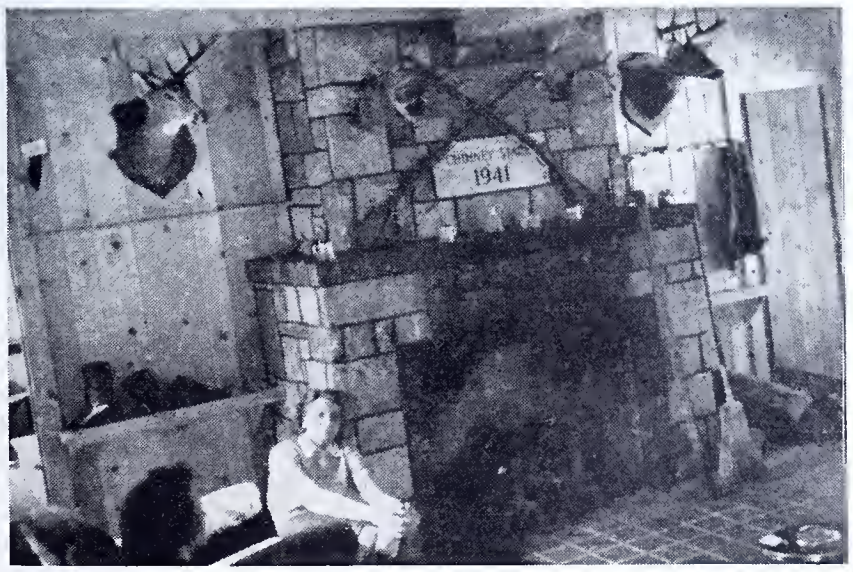
"While working on propagation area "E"-3, on August 24, the man I had assisting me, scared out three deer that came within 10 yards of me, the first was a six-point, the second was an eight-point and the third was a twelve-point with a perfect rack."—Game Protector Edward R. Richards, Division "E".



Photos by F. W. Fisher.

**The Chimney Stack Rod and Gun Club, Red Rock Mt., Luzerne and Columbia Counties.**

# ★ ★ ★ CURRENT TOPICS ★ ★ ★

Clarence Heppe, Southampton, Pa., has hunted all kinds of game since he was a boy, and is the proud possessor of every hunting license issued since 1913.

## HOWARD MARSHAL WIGHT WILDLIFE TEACHER DIES

When Professor Howard Marshal Wight, who taught Wildlife Management at the University of Michigan, died at his home in Ann Arbor on July 19, after a long and painful illness, the wildlife field lost one of its most outstanding members. Those who had H. M. Wight as a friend and teacher knew his immense and patient wisdom and gentle but unyielding fortitude. The courage and patience of this man, because he was humble in spirit and close to humanity, has kept many wildlife men at the task when they understood far less clearly the nature and progress of the struggle.

Many members of the field and office staffs of the Pennsylvania Game Commission will remember the Professor for his wildlife research in this Commonwealth a few years ago, when this important work was first being undertaken on a large scale in this State.

## HUNTING ACCOMMODATIONS LISTED

A county by county list of the hotels, inns, boarding houses and private homes that are in a position to furnish board and lodging to hunters, has just been published by the State Department of Commerce in pocket-size pamphlet form. The names and locations of the establishments are given, indicating either for small or large game; the highway route numbers; the seasons and bag limits; and the names and addresses of all game protectors. Every hunter should possess one of these valuable guides. In requesting copies of the above publication please write direct to the Department of Commerce.

## A REAL BEAR STORY

A dog belonging to Rush Rogers of Estella chased three bears up a tree near the Rogers home during last Monday night. There was the mother bear and two cubs. The dog kept them treed all day Tuesday. Scores of visitors including all the children of the Estella schools went to see them. It was the first time that most of the children had seen a live bear and were quite thrilled.

Eventually the dog became tired and the bears left for parts unknown.—*The Sullivan Review.*

### A CORRECTION

The figure on page 25 of the November, 1942, issue of this publication, 5th line, 1st column, should be 19,700, not 195,000 as printed.

## A HELPING HAND

**Washington County Sportsmen Remember Persons In Flood District In Northern Pennsylvania**

WHEN news of the flash flood in north central Pennsylvania reached the sportsmen of Washington County they remembered the fine sport enjoyed with the people of that section during past big game seasons. Accordingly they decided that this was the chance to help some of the persons who lost their homes, etc.

At the monthly meeting of the Washington Sportsmen's Association held on August 11, a check for $10 was drawn for use of a fund to help those needing assistance in the vicinity of Austin, Costello and Wharton. Donations were received by Mr. G. L. Black, President of the club in the form of clothing, shoes, bedding, etc. Mr. Joseph Heidelmeier, a member, offered the use of his truck in transporting and delivering anything collected. It was decided that the truck would leave Washington on the morning of August 24.

I contacted Mr. Sherman, Division Supervisor, and he suggested that we meet him at St. Marys and he would arrange for the disposition of the truck. We accordingly met Mr. Sherman and were conducted to Austin where we were met by Game Protector Arthur Logue and Mr. Collins, who is chairman of the distribution committee. The truck load of clothing, etc., was left in his care together with checks in the amount of $35.

This did not end the good work for at a meeting of the Washington County Sportsmen's and Conservation League held on September 18 a check for $50 was drawn in favor of Mr. Collins for distribution by him to those needing assistance. Many of the other clubs in the county are making a donation to this worthy cause. Below is a list of the donations in cash as far as I have knowledge.

| | |
|---|---|
| Washington County League ..... | $50 |
| Washington Sportsmen's Ass'n. ..... and truck of clothing, etc. | 10 |
| Fredricktown Field & Stream Club .. | 25 |
| Donora Sportsmen's Ass'n. ..... | 20 |

—District Game Protector Carl C. Stainbrook, Division "G."

## WITH THE BOYS IN THE SERVICE

"You mentioned in your letter that I would see many different kinds of birds and animals. I surely have and I have decided to make a study of the birds in this section. I am bunking with an ornithologist and I should have no trouble picking it up. 'Road-runners,' a bird you mentioned in your letter, are plentiful in this section, but the great flocks of doves are the birds that I have become most interested in. They are called white wings and it seems that they are the most hunted birds in these parts.

"I have been quite fortunate in receiving a corporal's rating so soon and feel sure that I will advance still further in the near future. I have been requested by our Lieutenant to file an application for Officers' Training School, but the Captain wants me to stay here for he claims that my chances for advancement are much greater here under the present setup.

"While at Camp Beauregard I was sent to a school for six weeks to learn jui jitsu and then was appointed instructor for our battalion. I received many valuable pointers on jui jitsu and enjoyed it very much. The experience I received at the G. C. T. S. gave me a decided edge on the other fellows and I have been very grateful for the experience I received there."—Corp. Jack Kepner, Co. A, 796 M. P. Bn., Fort Sam Houston, Texas.

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L. B. Welch, former employe of the Commission, is now in training at the Great Lakes Naval Training Station Great Lakes, Illinois. Welch expects to graduate on November 6.

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Lieut. James N. Morton graduated from Army Air Corps Intelligence School. Now at 10th Photo Reconnaissance Squadron, Colorado Springs, Colo.

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We just received word that Pvt. Nicholas M. Ruha is now in training as a bombardier and Gilbert L. Bowman recently received a commission as Second Lieutenant in the Engineers.

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It's Corporal Bill Miller now. Bill dropped in to see us on furlough the other day. So did Sergeant McDowell who, by the way, is "on his way." Good luck fellows.

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"We see very little game down here, however, I do see quail quite often. There are some deer and turkey but to date I haven't seen them.

"I still think that food is scarce down here. There are some seed bearing weeds and shrubs that seem to hold the quail.

"I do not know how the deer get along down here. In Pennsylvania the deer feed and graze on agricultural land a good deal. Down here the farmers only grow tobacco, the deer do not eat that because they have not learned how to spit.

"Bob Lichtenberger is also down here, we see each other regularly."—Corporal R. W. Trexler, C-13-4, F.A.R.C., Fort Bragg, North Carolina.

# NOTES FROM THE FIELD

"While mowing refuge lines and fire trails on Managerial Group No. D-8 the men killed 27 copperhead snakes of which 18 female were carrying young with an average from 5 to 13 little snakes in each female and 9 had no young. The young averaged in length from 5" to 7"."—Game Protector Orrie E. Smith, Division "D," September 27, 1942.

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"There are a great number of squirrels traveling, cutting acorns and hickory nuts." —Game Protector William Lane, Division "D", September 13, 1942.

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"I have never seen mountain ash with as much fruit as it has this year."—Game Protector Edward R. Richards, Division "E", September 8, 1942.

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"On October 15, I had occasion to observe at a close distance a buck deer with a perfectly formed four-point antler on the right side of its head but there did not seem to be any on the left side."—Game Protector H. F. Hoffman, Division "B."

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"On the evening of September 15, Deputy Peter Zikosky was fishing plug from the shores of Brady's Lake. After a futile three

Camp of New Jersey Bog Cutters in Porter Twp., Pike County, Pa. These men purchase peat bogs from landowners and set up camps. Some are reputable, some are not. One Raymond L. Embody of Branchville, N. J., was not. In the bag shown above was found venison. Game Protector John Lohmann, who submitted the photos, says "the interesting part of the case to me was the fact that after checking this truck at the State Line Bridge, and after examining its contents, I had a hunch the outfit could not be trusted. Having an opportunity to slip into the region of their camp unobserved, I found it equipped with a 12 gauge shotgun and four boxes of buckshot. One shell was missing from the entire four boxes and the right barrel of the gun had been fired. After searching around a while the shell was found a short way from the camp, and at the edge of the swamp below it I found where a bear had rooted up the head and hide which Embody had buried there. It appears Mr. Embody was offered $25.00 for each carcass of venison he could deliver to certain roadhouses in Sussex County, N. J.

## PATRIOTIC

**A suggestion for sportsmen's associations that have members in service who were subscribers to the GAME NEWS. Keep their subscriptions in force so when they return they will have an unbroken series for their files.**

### FIELD NOTES

hours of fishing without a strike Mr. Zikosky was on the verge of giving up for the day. On the final cast his plug became detached from the line and fell some forty yards off shore. It was a surf-oreno, costing $1.25, riding the ripple of the chilly waters. Being a new and rather successful plug, "Pete" decided to undress and rescue it. Wading into the cold water up to his neck he was soon within a few yards of it when a good-sized bass broke water and disappeared with one dollar and twenty-five cents worth of timber. Neither bass or plug was seen again."—Game Protector Paul L. Failor, Division "B".

"Woodducks are showing a remarkable increase in numbers over previous years. In the evening there is quite a heavy flight of these ducks to be observed coming into Lake Le Boeuf and onto the beaver dams along Le Boeuf Creek."—Game Protector Fuller H. Coffin, Division "F," October 11, 1942.

"I saw the first flight of geese, going south yesterday, that I have seen this season. There were more than seventy birds in the flock and they afforded a beautiful sight in the sky."—Game Protector Elmer D. Simpson, Division "F", October 11, 1942.

"I found a dead skunk along refuge 13-A and upon examining it found that it was full of porcupine quills."—Game Protector Chester S. Siegel, Division "C", October 11, 1942.

"One of the largest crops of teaberries in years of observation is present in most of the section covered in my routine travel while taking care of work in Land Group E-6. All other shrubs produced a good crop while the oaks produced a very small and spotted crop of acorns."—Game Protector Earl E. Smith, Division "E", October 8, 1942.

"Within the past week I have seen 13 bucks, 3 of them had exceptionally large racks, and 2 were spikes."—Game Protector George E. Sprankle, Division "E", October 8, 1942.

Game Protector Peter J. Filkosky reports a number of pure albino ringneck pheasants of both sexes in District A-15, Chester County.

Lost: .30 cal. U. S. Springfield Army Rifle, Model 1903, No. 470671. If found notify J. E. Wallace, Box 165, Willow Springs, Illinois. $25 reward.

"Last week a red fox visited a farm and took three chickens in the middle of the afternoon, one each day for three days. On the fourth day the farmer shot the fox when it returned for another chicken."—Game Protector George H. Burdick, Division "F", August 16, 1942.

"While patrolling in vicinity of Merrill Road on August 15, I saw a fawn that was very small and I would say that it was not over one week old."—Game Protector Edward R. Richards, Division "E", August 16, 1942.

Members of the Rochester Sportsmen Club gave valuable assistance in the establishment of Farm Game Project No. 86, New Sewickley Twp. Beaver Co. by helping set up the Safety Zones and one small refuge—Game Protector J. Bradley McGregor, G-1.

I have a suggestion that is well worth trying: This year the metal refuge signs on S.G.L. No. 173 were badly faded. I gave them a coat of red paint, then secured a small rubber roller and went over the raised letters with white paint, now the signs appear to be new.—Game Protector J. Bradley McGregor, G-1.

"On previous trips to State Game Lands No. 156, Lancaster County, I noticed long eared owls roosting in a small hemlock in Refuge "A." On my last trip to that refuge, I again called on my friends but didn't find them there, however, they proved to be good birds as there were probably 150 or more mice skulls under the tree."—Game Protector R. E. Holtzapple, Division "A," October 11, 1942.

BUY—
WAR
BONDS
AND
STAMPS

"While mowing refuge line on the Military Reservation I saw many apple trees that had been climbed quite often by bear. A good crop of apples are found on all parts of the reservation. I believe that a good bear population inhabits these lands."—Game Protector Paul L. Failor, Division "B", August 6, 1942.

"Victor Brown of Port Allegany, R. D. No. 2, reported that two orphan fawns which are staying on his farm, are getting a good meal every night by nursing a certain one of his cows."—Game Protector Cecil D. Hancock, Division "E", September 4, 1942.

Our deer hunters have remembered from past experience that it is good policy to hold their shot until the doe gets out from behind the buck. This is especially true this year when bucks are legal. Killing two with one shot is a costly proposition.

"Several days ago I heard the rumor that a silver fox was seen along Branch Creek, South East of Perkasie. Today the rumor became a fact. This afternoon a man stopped at my headquarters with a dead silver fox which was killed by his dogs while training them on rabbits. From the condition of the pads and toenails on the feet, I judge that the fox escaped recently from a fox farm. In one ear were the initials H. V. and in the other the number 93."—Game Protector James A. Brown, Division "A", September 6, 1942.

"There is a bear hanging around the Beaver Meadows refuge that seems to have a dislike for the sign boards on the refuge. Tears the boards off the post and then takes them apart. This has happened for the last three years. There were several boards destroyed this fall."—Game Protector Edward Shaw, Division "F", Sept. 6, 1942.

**STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC., REQUIRED BY THE ACTS OF CONGRESS OF AUGUST 24, 1912, AND MARCH 3, 1933**

Of Pennsylvania Game News published monthly at Harrisburg, Pennsylvania for October 1942.

State of Pennsylvania } ss.
County of Dauphin }

Before me, a Notary Public in and for the State and county aforesaid, personally appeared Leo A. Luttringer, Jr., who, having been duly sworn according to law, deposes and says that he is the Editor of the PENNSYLVANIA GAME NEWS and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation) etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, as amended by the Act of March 3, 1933, embodied in section 537, Postal Laws and Regulations, printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are:
Publisher Comm. of Pa., Pa. Game Commission, Harrisburg, Pa.; Editor Leo A. Luttringer, Jr., Harrisburg, Pa.; Managing Editor William L. Drake, Harrisburg, Pa.; Business Manager, D. L. Batcheler, Harrisburg, Pa.

2. That the owner is: (If owned by a corporation, its name and address must be stated and also immediately thereunder the names and addresses of stockholders owning or holding one per cent or more of total amount of stock. If not owned by a corporation, the names and addresses of the individual owners must be given. If owned by a firm, company, or other unincorporated concern, its name and address, as well as those of each individual member, must be given.)
Commonwealth of Pennsylvania, Pennsylvania Game Commission Harrisburg Pa.

3. That the known bondholders, mortgagees, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: (If there are none, so state.)
None.

4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than of a bona fide owner; and this affiant has no reason to believe that any other person association or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him.

5. That the average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the twelve months preceding the date shown above is ..... (This information is required from daily publications only.)

LEO A. LUTTRINGER, JR.

Sworn to and subscribed before me this 1st day of October, 1942.
(My commission expires March 5, 1943.)
LUCILLE A. STROUP.
Notary Public.

(SEAL)

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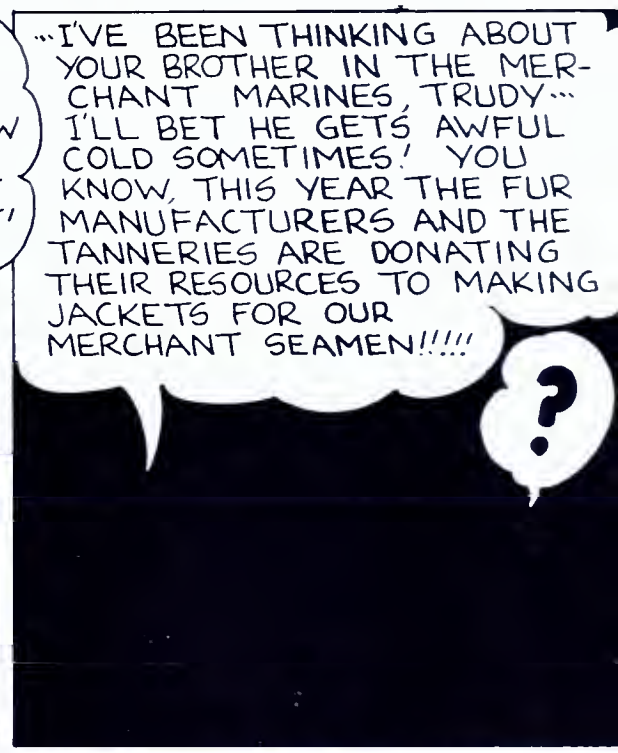
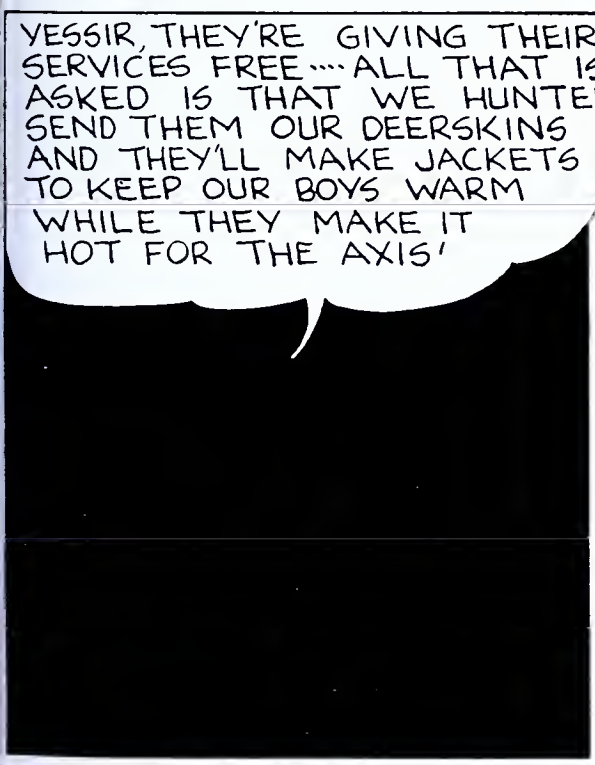
# THE FAMILY OF A. HUNTER, ESQUIRE—EPISODE NO. 21



# OFFICIAL 1942 OPEN SEASONS AND BAG LIMITS

(AS FIXED BY COMMISSION AT MEETING ON APRIL 30, 1942)

**(All Shooting Hours Based on Eastern War Time)**

Open season includes both dates given, Sundays excepted for game. **On October 31 no hunting of any kind before 9 A. M.** With this exception, shooting hours daily are 8 A. M. to 6 P. M., except from July 1 to September 30 inclusive, 7 A. M. to 8:30 P. M. **Traps may** not be set before 8 A. M. on the first day of any season for trapping in open counties. **Raccoons** may be hunted at night, with a noon-to-noon daily limit.

| **UPLAND GAME** (Small game possession limit three days' bag) | Bag Limits Day | Bag Limits Season | Seasons Open | Seasons Close |
|---|---|---|---|---|
| Ruffed Grouse | 2 | **10** | Oct. 31 | Nov. 28 |
| Quail, Bobwhite | 5 | 15 | | |
| Wild Turkey (See 10 counties closed below)* | 1 | **1** | | |
| Ringneck Pheasants, males only | 2 | **12** | | |
| Grackles (commonly called Blackbirds) | Unlimited | | | |
| Squirrels, Gray, Black and Fox (combined kinds) | 5 | **20** | | |
| Rabbits, Cottontail | 4 | **20** | | |
| Hares (Snowshoe or Varying) | 2 | **6** | Oct. 31 | Nov. 14 |
| Hungarian Partridges (2 counties only)* | 2 | 8 | | |
| Squirrels, Red | Unlimited | | Oct. 31 | Sept. 30, 1943 |
| Raccoons, by individual or hunting party: | | | | |
| Upper Zone: (17 counties)* | 2 | .. | Oct. 20 | Jan. 15, 1943 |
| Lower Zone: (50 counties)* | 2 | **15** | Nov. 10 | Jan. 15, 1943 |
| Raccoons, by trapping (See 15 counties closed below)* | | .. | Nov. 10 | Jan. 15, 1943 |
| Woodchucks (Groundhogs) | 5 | **Unlimited** | **July 1** | Sept. **30** |
| Bear, over one year old by individual | 1 | **1** | Nov. **18** | Nov. 21 |
| Bear, over one year old by hunting party of three or more | 2 | **2** | | |
| Deer, male with two or more points to one antler | 1 | **1** | Nov. 30 | Dec. 12 |
| Deer, as above, by hunting party of six or more | 6 | **6** | | |

**NO OPEN SEASON—Hungarian Partridges** (except as above noted), **Sharp-tailed Grouse, Doves, Antlerless Deer, Elk, Cub Bears and Otters.**

**FUR-BEARERS**—(Traps not to be placed before 8 A. M. on any opening dates)

| | | | |
|---|---|---|---|
| Minks | Unlimited | Nov. 10 | Jan. 15, 1943 |
| Muskrats (By traps only) | Unlimited | Dec. 1 | Jan. 15, 1943 |
| Beavers (By traps only, statewide)* | 3 | Feb. 15 | Feb. 28, 1943 |
| Skunks | Unlimited | Nov. 10 | Jan. 15, 1943 |
| Opossums | Unprotected until September 30, 1943 | | |

**AN APPEAL TO TRAPPERS**—In order to avoid destroying game and injuring dogs, trappers are requested to refrain from setting traps in trails. All traps must be tagged; durable substitute for metal tag may be used.

## *SPECIAL COUNTY REGULATIONS

**Hungarian Partridges**—Hungarian Partridges may be hunted only in Cumberland and Franklin Counties. All other counties are closed.

**Turkey**—No Turkey season in Cameron, Clarion, Clearfield, Elk, Forest, Jefferson, McKean, Potter, Warren and Westmoreland Counties.

**Raccoon Hunting**—

**Upper Zone:** This zone comprises the counties of Bradford, Cameron, Centre, Clearfield, Clinton, Elk, Jefferson, Lackawanna, Lycoming, McKean, Pike, Potter, Sullivan, Susquehanna, Tioga, Wayne and Wyoming.

**Lower Zone:** This zone comprises all counties not included in the Upper Zone.

**Raccoon Trapping**—No raccoon trapping in Beaver, Berks, Butler, Cambria, Chester, Dauphin, Delaware, Jefferson, Lancaster, Lawrence, Lebanon, Luzerne, Northampton, Schuylkill and York Counties.

**Beaver Trapping**—Beaver trapping in all counties. **Non-Residents may not trap beavers in Pennsylvania.** One person may set, tend or operate 10 traps only. Persons trapping beavers are required to keep the trap tags above ice or waterline to facilitate identification without disturbing the traps. To expedite the tagging of beaver pelts as required by law, trappers are requested to have them tagged in the district or county in which taken.

**Snares**—No counties open to use of snares this winter.

**FEDERAL SEASONS MIGRATORY GAME BIRDS—**

| | | | |
|---|---|---|---|
| Rails and Gallinules (Except Sora and Coot) | 15 combined kinds | Sept. 1 | Nov. 30 |
| Sora | 15 | Sept. 1 | Nov. 30 |
| Woodcock (Possession Limit—8) | 4 | Oct. 24 | Nov. 7 |
| Wild Ducks (See Restrictions) | 10 | | |
| Wild Geese | 2 combined kinds | Oct. 15 | Dec. 23 |
| Coots (Mudhens) | 25 | | |

***RESTRICTIONS**—Daily bag limits—DUCKS: 10 in the aggregate, may not include more than 3 Redheads or Bufflheads, or 3 of these combined species, and 1 Wood Duck.

**POSSESSION LIMITS**—Ducks, Geese, Brant and Woodcock: Twice the daily bag (except on opening day). BUT ONLY ONE (1) WOOD DUCK MAY BE POSSESSED AT ANY TIME. All other migratory birds: One day's limit only. Possession limited to 30 days after season.

**SHOOTING HOURS**—(Eastern War Time)—Migratory game birds: From beginning of respective seasons to Oct. 30, inclusive, sunrise to sunset; Oct. 31, 9 A. M. to 6 P. M.; Nov. 1 to end of respective seasons, 8 A. M. to 6 P. M. (unless sunrise occurs later or sunset earlier, when Federal sunrise-sunset regulations automatically apply.)

# PENNSYLVANIA GAME NEWS

P38.34
1.6

JANUARY, 1943 TEN CENTS

# PENNSYLVANIA GAME NEWS

PUBLISHED MONTHLY BY THE PENNSYLVANIA GAME COMMISSION, HARRISBURG, PENNSYLVANIA

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VOL. XIII, NO. 10

# EDITORIAL

JANUARY, 1943

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★

Cover by Joe Wolf

☆

## *RESOLVED!*

"To keep our organization alive and working just as hard in the interests of conservation during 1943 as we did in 1942."

Here is a resolution that every Sportsmen's Association and each member should make and keep. We all know there is a war to win, and are doing our utmost to hasten our ultimate victory.

Sure we must put a lot of things aside, but the more of them we put aside the more we realize how unnecessary many of them are, at least temporarily.

But there is one thing we dare not put aside—our interest. Now more than ever before we have to keep up that interest—interest in our Sportsmen's Association too.

Now is not the time to pull the blinds down, close the shutters, and bar the door with a "closed" sign. Now is the time to keep the blinds up, the shutters open, the lights burning and a "Welcome" mat on the porch.

Conservation means a lot to the war effort. Sportsmen mean a lot. Already they have demonstrated what they can do in their own communities—serving as air raid wardens and airplane spotters, guard duty, buying and selling war stamps and bonds, hosts to service men, donating blood, members of reserve militia, etc.

The ranks of some associations have been thinned because members are now in the armed forces, but that is no reason to close shop. A club that folds up now is letting its service men down! If it lacks members it should make an effort to get new ones. If the club is on its toes doing things toward the war effort it will attract attention. What better talking point? What better way of getting more fellows to help do more things?

But let us each resolve to do our part. Don't "let George do it" for you.

## *CONSERVATION*

It is unfortunate that in Pennsylvania conservation education has fallen far behind in the general educational field, especially as conservation is the basis of permanent prosperity.

Conservation up until now has been treated as the stepchild of all subjects in the public school courses of the majority of our American schools. When taught it has served mainly to stress what has been done, but it has never really emphasized what can and should be done to save and wisely utilize our natural resources.

Education should not only stress the theoretical side of conservation but the practical side as well—see "Conservation and Gardens" by Mrs. G. Ira Stott in this issue. Children and older folks should learn by doing. Everyone, at some time or other, practices some theory of conservation.

Conservation is the responsibility of each individual, State and Nation. If any person wastefully exploits or destroys natural resources he is a traitor to his country. If any state or nation allows the wasteful exploitation of its resources it is betraying its people. Every citizen, state and nation should think of the generations to follow. The conservation or wise use of our natural resources will play an ever important role in the future, and will have a direct bearing on any political or social reforms brought about by the present world conflict.

A constructive course in conservation education should be required of everyone. Without it the world will continue to be moved by a selfish system of individualism. If we are not exceedingly careful we shall be guilty of the darkest of crimes—that of transmitting to future generations a world of diminishing or exhausted resources.

The only way we can prevent a catastrophe is for every person to pledge himself or herself, and work towards the teaching and practicing of the basic principals of conservation in the public school systems of the Country.

# HAPPY NEW YEAR

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*Dogs recruited by Dogs For Defense, Inc., are trained by the Armed Forces at their dog reception training centers. They are taught by qualified trainers, cared for by competent veterinarians, housed, fed, exercised and groomed by men trained for the purpose. The dog you give will be looked after as well as the soldier whose life he is dedicated to protect. Our war dogs are already in action from the Solomons to Africa guarding lives and property, but tens of thousands more are needed. A national breeding program has been started so that suitable dogs bred right will be available next year. Anyone interested in raising puppies for this vital project should communicate with W. Newbold Ely, Director, Dogs For Defense, Ambler, Pa.*

# We're Equal to Six Guards

*By W. Newbold Ely, MFH*

WAR DOGS were used by the ancients, and Egyptian carvings show them being turned on the enemy with their chariots.

The Tower of London has armor used by the War Dogs in the time of the Crusades, each set bearing the crest of its owner.

Germany used dogs extensively in the last war, and since then had been building up her dog army unhampered by the Versailles treaty until she had 50,000 trained dogs on duty when the war started. As late as a few years ago she was still taking many of our best dogs by forged applications through Holland.

Japan was given 10,000 trained dogs from Germany, and has been using them in her China, Burma and Pacific campaigns.

Russia has a large number of dogs on duty, and the same for England, which is using them in Libya.

The dogs have been so successful that the War Department has gradually raised the number they want from 10,000 to 298,000, based on their success already, both at home and abroad with the Army, the Navy, the Marines, and the Coast Guard.

The role of these War Dogs is varied. The English dress them in Arab costumes and draw enemy fire in the shimmering glare of the desert atmosphere, thus locating the enemy gun emplacements. They are also used to carry light ammunition, machine guns, as sledge dogs, first aid dogs, wire laying dogs, etc., but the largest field is as sentry dogs where patrolling especially at night, their superior senses of hearing and smelling make them aware of strangers before their guard. This patrol duty covers the Beaches and Coastal areas, Shipbuilding Plants, Airplane Hangars, Warehouses, Arsenals, Navy Yards, Defense Plants, etc., and has caught hundreds of saboteurs in various parts of the U. S.

A man and a sentry dog have been found equal to 6 regular guards.

*Specifications:* Purebred and direct crossbred dogs in top physical condition, with the characteristics of a watch dog, over 18 inch shoulder height, between the ages of one and five years.

The following is the latest official bulletin from Harry I. Caesar, National President of DOGS FOR DEFENSE:

1—The breeds most wanted by the Army are:
- German Shepherd Dogs
- Belgian Shepherd Dogs
- Doberman Pinschers
- Boxers
- German Short Hair Pointers
- Great Danes
- Old English Sheepdogs
- Airdale Terriers
- Kerry Blue Terriers
- Dalmatians
- Giant Schnauzers
- Standard Schnauzers
- Collies
- Poodles
- Crossbreds of the above breeds

2—Pack dogs (Mastiffs, Bull Mastiffs, Komondorok, Kuvasok, Bernese Mountain Dogs, Newfoundlands, Saint Bernards, Great Pyrenees) can be delivered only on Special Army Order.

**Two men and a dog. Here's a picture the editor dreamed of many times. Chance, gave it to him. Two veterans—one "old" young, and one young—Seth Gordon, left, and John M. Phillips, right.**

3—Irish Wolfhounds, Borzois, Scottish Deerhounds, Greyhounds, Bloodhounds, can be delivered only on Special Army Order.

4—Sledge dogs (Alaskan Malamutes, Eskimos, Samoyedes, Siberian Huskies) are not procured for the Government by Dogs For Defense. We would appreciate your sending us copies of the questionnaires on these breeds as you receive them, and we will forward them to the War Department for their consideration.

5—The Army does not want the following breeds:
- Afghan Hounds
- Chows
- Salukis
- Whippets
- Pulik
- Keeshonden

All dogs under 18″ shoulder height

6—The Army is now doing experimental work with Bull Terriers, Bulldogs and Staffordshire Terriers. They have a sufficient number of these breeds for this purpose, and have asked us not to deliver any more until further notice.

7—Because of the cold climate, short haired dogs such as Danes, Dobermans and Boxers cannot be sent to Fort Robinson, Nebraska.

8—It has been decided to continue the use of the donor's release. This should be signed at the time the dog is taken, and sent to the New York office with the original questionnaire when the dog is shipped.

In addition to Front Royal, Virginia, and Fort Robinson, Nebraska, there is the San Mateo station.

On account of the fact that K-9, the Dog Corps, will be continued after the war, the Army has stated that in most cases the owner cannot expect the dog back.

The Coast Guard of the 4th Naval District has a special arrangement with Washington whereby they take (a) only German Shepherds (b) take them from the donor immediately. (c) enlist them if donor wishes, just for the duration. (Write Regional Director for Pennsylvania).

The dogs receive the best of food and care in the service and their own "serviceman trainer" goes on duty with his dog which he has an affection and pride for. Their period of training is from three to eight weeks, depending on the adaptability of the dog.

For further information on the Shepherds write W. Newbold Ely, V. S. C. G. R., Ambler. Anyone having dogs meeting the above specificaions should write the Regionai Director, Dogs for Defense, in their area. A list of these Directors follows:

**List of Regional Directors**

Arizona:
Selden E. Wolcott,
Phoenix National Bank Building, Phoenix, Arizona

Hawaii:
Harold K. L. Castle,
Kaneohe Ranch Co., Ltd.,
Hawaiian Trust Company, Honolulu, T. H.

Illinois:
Gerald Murphy,
111 N. Canal St., Chicago, Ill.

Indiana:
Mrs. W. Jim Roberts,
P. O. Box 6066, Indianapolis, Ind.

Iowa:
J. H. Schuffman,
Route 1, Kimberly Road, Davenport, Iowa

Kentucky:
Mrs. Harkness Edwards,
Donerail, Ky.

Maryland, Delaware and Washington, D. C.:
Edward T. Boswell,
1603 Munsey Bldg., Baltimore, Md.

Michigan:
John S. Sweeney, Jr.,
1100 Penobscot Bldg., Detroit, Mich.

Minnesota:
Henry W. Norton,
New York Life Bldg., Minneapolis, Minn.

Missouri:
Mahlon B. Wallace, Jr.,
Maplewood, P. O., St. Louis, Mo.

Nebraska:
Mrs. Hoagland Elliott,
520 N. 48th St., Omaha, Nebraska

New England:
George S. West,
84 State St., Boston, Mass.

Wm. Prescott Wolcott,
84 State St., Boston, Mass.

New Jersey:
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Madison, N. J.

New Mexico:
Miss Amelia E. White,
660 E. Garcia St., Santa Fe, New Mexico

New York State:
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Tuxedo Park, N. Y.

Mrs. Marvin Preston,
533 Riverside Drive, North Tarrytown, N. Y.

William H. Schwinger,
Irving Air Chute Co., Inc.,
1670 Jefferson Ave., Buffalo, N. Y.

Northwest Area:
Dr. James B. Harrison,
2850 N. E. Union Ave., Portland, Ore.

*(Continued on page 18)*

# PENNSYLVANIA 1941 GAME HARVEST

Photo by E. L. Fenstermaker.
**Mr. and Mrs. Ray Geib and "Sandra" first day of 1942 season, Lancaster.**

WE live in a day when much is heard about mass production—an all-out effort on the part of our industrial plants, large and small, to produce the implements of war in hitherto unknown quantities, speed and efficiency. Therefore it is timely for us to think of our great Commonwealth as one of the front-line game states in the same sense as we now think of her as the mammoth arsenal of democracy in the United States. As the sportsmen thus evaluate their rich heritage in the field of conservation, they take much pride in the balance sheet—the annual game harvest.

Because of the Commission's educational program and its tolerant endeavor to have the greatest possible number of hunters file their reports, it is not feasible to publish the final report until the following October or November. The educational program which has produced such splendid results in the past consists of mailing special reminder notices to delinquent hunters as soon after the deadline for filing reports as is humanly possible to do so. For the year under discussion, this group included fifteen per cent of the licensed hunters. It requires considerable time to receive responses from many of the delinquent hunters. Following this operation the reports are tabulated and the license numbers are placed in truly numerical order so that the hunters to whom the Commission mailed notices can be properly credited. Even then we are not yet ready for the publication of the final report, as there are still a small percentage of hunters who have not responded to the notices who must be further contacted in a final endeavor to adjust the matter.

*If all the hunters would cooperate with the Commission in all matters pertaining to the filing of their reports it would make it possible to publish the final Game-Kill Report at a much earlier date.*

### When Reports Were Published

Early in July, after completing the tabulation of the first ones of the 1941 reports submitted by 580,974, or 84½%, of the licensed hunters, the Commission in a statewide news release gave a preliminary report on the 1941 game harvest. The second release, which included additional reports received from the hunters to whom the Commission mailed reminder notices, boosting the percentage to 96% of the licensed hunters, was published in the November issue of the GAME NEWS, which was mailed prior to the opening of the 1942 small game season. The final report as published in this article is based on the kill as tabulated from reports filed by 97½% of the 687,134 licensed hunters. This compares very favorably with the banner years, 1939 and 1940, when 98½% of the licensed hunters filed reports. *That the decrease was not greater is most unexpected, as it must be remembered that many of the boys were called into the armed forces before the deadline for filing reports, and many hunters secured employment in other states on defense work before they had an opportunity to file their reports.*

### Five-Year Record

The Commission started to tabulate these Game-Kill Reports in 1937. From the very outset it was apparent that the Commission's previously published reports, based on field estimates, were in most instances entirely too conservative, and not excessive as some believed. With three exceptions, as below noted, the tabulated kill during the 1937-41 period ran from 5% to 63% in excess of the estimated kill. The species on which the tabulated kill ran below the estimated kill were: Raccoon, 7%; Wild Waterfowl 34% and Wilson's Snipe, Gallinules and Rails, 53%.

Believing that the sportsmen would be interested in the annual tabulated kill by years, from 1937 to 1941 inclusive, also the average annual kill for the same period, as contrasted to the average annual kill during the five years which immediately preceded it, during which period the compilation was based entirely on field estimates, a statement giving this information accompanies this article.

During the 1937-41 period the average annual kill numbered 5,818,946 birds and mammals, whereas for the previous period the annual average was only 3,778,671 pieces of game. During 1937-41 the average annual weight of the game harvest was 9,597 tons, as against 4,850 tons annually for the previous five years. Reasons for the increase other than those already explained include: (a) the severity of the 1935-36 winter, which resulted in an abnormal decrease in the kill during the short season allowed in 1936; and (b) the improvements in the Commission's program, the more effective cooperation of landowners and sportsmen, and favorable weather conditions have combined to assure more game for the hunters.

### Added Benefits

After five (5) years of tabulating the Game-Kill Reports, it is not unusual for sportsmen to ask questions about the advisability of annually tabulating the reports. This is a very timely question, the importance of which justifies a complete explanation, even though it may be necessary to reiterate previously published statements.

There are still many sportsmen, especially the newcomers, who are laboring under a false impression, namely, that the only benefit the Commission derives from the expenditure is a tabulation of the game harvest. Even if this were true, the expenditure of approximately one cent per dollar of departmental expenditures would certainly be justified since it gives the Commission reliable information which of necessity must be taken into consideration in its long-term programs. Few sportsmen will dispute the fact that if the Commission had complete tabu-

Photo by D. L. Batcheler.
**Master Harold L. Houck, R. No. 3, Harrisburg, with a brace of rabbits killed opening day 1942 season near Farm-game Project No. 52, Dauphin County.**

*By N. E. Slaybaugh*

***If all hunters would cooperate by filing their reports promptly the Commission could publish this report much earlier***

lated figures on the annual kill for the past twenty-five years, as we have for the past five, it could today plan more effectively to meet the problems which future years will bring.

However, there are other very important and beneficial results. For example, after five years we find that cheating in one way or another to secure licenses has been reduced to a very low level. Under the present system the unscrupulous non-resident hunter finds it more difficult to purchase and use a resident license to which he is not entitled. Furthermore, this system keeps in check the alien who would purchase a license, the possession and use of which is denied him by law. Less "Undeliverable" special reminder notices are now returned to the Commission than several years ago, a further proof that desirable results have been obtained in keeping cheating to a minimum.

Relative to our contention that the benefits derived from tabulating the reports is not limited to an accurate record of the game kill, it is most interesting to study the non-resident license sales prior to and during the years the reports have been tabulated, as follows:

**Prior to Annual Check-Up**

| | |
|---|---|
| 1932 | 5,252 |
| 1933 | 4,966 |
| 1934 | 6,024 |
| 1935 | 8,460 |
| 1936 | 7,126 |
| Total | 31,828 |

**Years Reports Have Been Tabulated**

| | |
|---|---|
| 1937 | 8,357 |
| 1938 | 7,584 |
| 1939 | 9,049 |
| 1940 | 12,748 |
| 1941 | 10,785 |
| Total | 48,523 |

It is not our idea to give the impression that the entire increase can be attributed directly to the tabulation of the reports, which helps to detect certain irregularities, but the trends are such that it is obvious that less non-residents are now taking a chance and hunting with resident licenses.

Photo by D. L. Batcheler.

**These two young nimrods are very proud of their bag of pheasants and rabbits taken on Farm Game Project No. 52, near Linglestown, Dauphin County the first day of small game season.**

**Number of Days Hunted**

The Commission did not start to tabulate the number of days the average man hunts, or how he divides his time between small game and big game hunting, until 1939. Therefore no information was available on this subject prior to 1939. This most interesting and valuable information is readily obtained at the time the reports are tabulated.

Out of the 669,812 hunters who filed reports for the 1941 season, there were 365,562 (54.6%) who supplied information on the number of days hunted, which compares to 382,169 (56.3%) of the 679,168 who furnished comparable information for 1940. The tabulation of this information being so recent, the results of the 1941 tabulation and also the year 1940 are both given in this article.

A study of the results of this tabulation for the two years under review reveals some interesting facts. In 1941 there were 16,824 hunters, or 4.6%, of those giving this information who reported that only big game was hunted, while in 1940 there were 29,006 hunters, or 7.6%, of those reporting the number of days hunted who hunted big game only. During 1941 there were 171,577, or 46.9%, of those so reporting who hunted small game only, whereas in 1940 there were 118,449, or 31%, of those reporting who hunted small game only. It is obvious that the statewide open season for the killing of both sexes of deer during 1940 took many hunters out of the classification "small game only" and placed them in the classification "both small and big game."

The reader must remember that the average number of days hunted per man and how he divided his time is not based on the entire 687,134 licensed hunters during 1941, but only on 365,562, or 53.2% of the licensees. However, it is fair to assume that the percentages given will hold true for the entire army of hunters.

It is of interest to note that by adding the 16,824 "big game only" hunters to the 177,161 "both small and big game" hunters (1941), we get a figure of 193,985, or 53.1%, of the 365,562 who supplied the information on the number of days hunted who sought big game.

It is apparent that the 48.5% of the 1941 hunters who hunted both small and big game include those who were able to devote more time to hunting. This group of hunters spent an average of almost one day more per man in pursuit of small game than did those who hunted small game only, while those same hunters (the 48.5% group) spent within six-tenths of one day per man as much time hunting big game as did those who specialized on big game only.

The 365,562 hunters (1941) who gave this information enjoyed a total of 2,722,211 man-days of sport afield (382,169 hunters in 1940 reported 3,044,443 days). If this same average held true for the entire 687,134 licensed hunters in 1941, the license holders in Pennsylvania devoted a total of 5,084,791 separate man-days to hunting, during which time there were 5,710,767 pieces of game taken. On the basis of the 1940 report the 679,168 licensed hunters devoted a total of 5,433,344 separate man-days to hunting, with 5,619,970 pieces of game taken. None of these computations takes into account the amount of hunting or the total game killed by the farmers on Pennsylvania's 169,000 farms, many of whom did not secure licenses. However, it also must be borne in mind that indications are that about 9½% of the license holders are farmers.

Photo by D. L. Batcheler.

**Every year finds an increasing number of negro sportsmen afield. They are great hunters and fishermen, and very law abiding.**

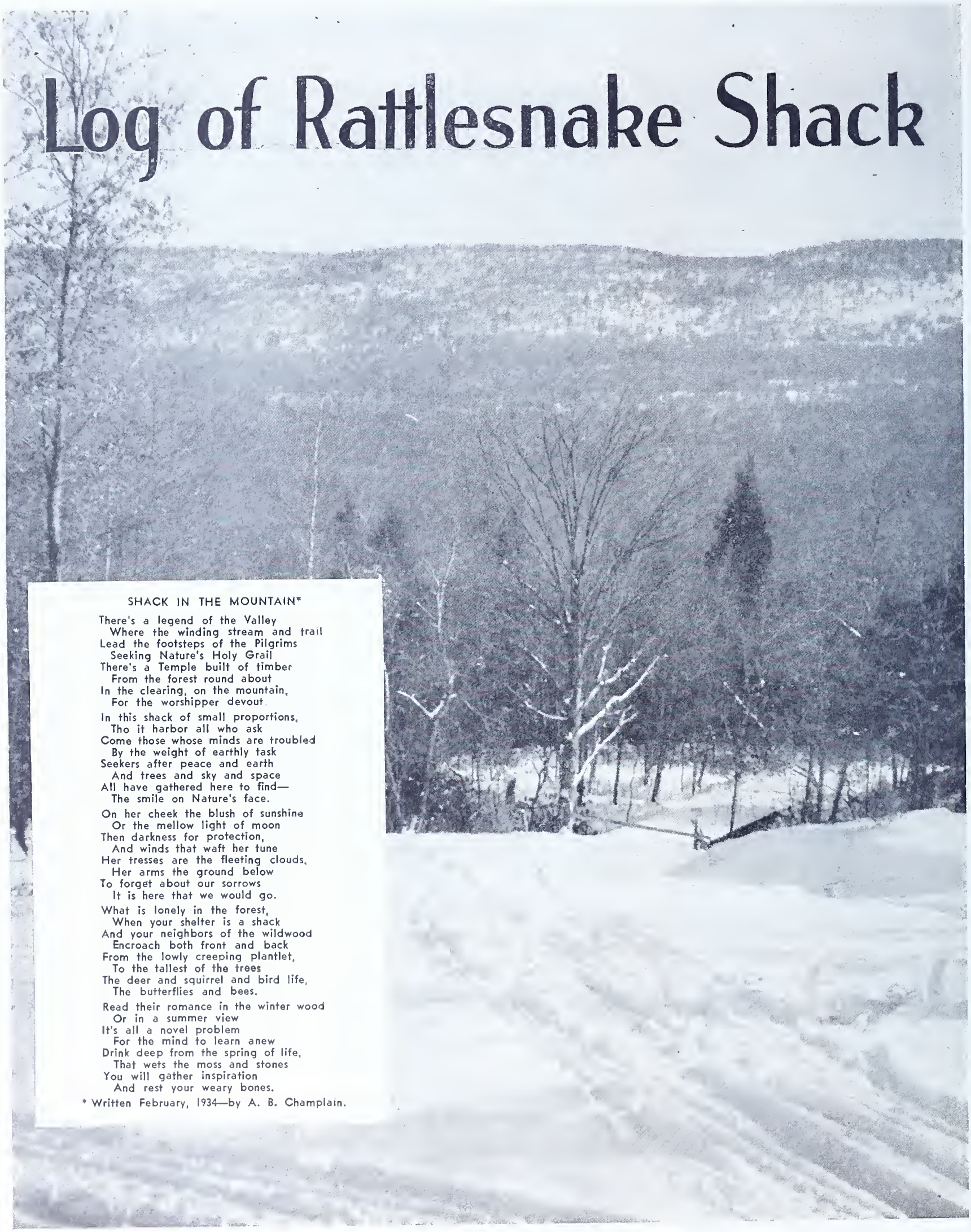
According to the game-kill tabulation, during the 1941 season 16½% of the licensed hunters killed no game, as compared to 12.8% during 1940. This includes not only those who were unsuccessful but also those who bought licenses and did not have an opportunity to hunt.

**Hunters Cooperating**

By this time it is apparent our great army of hunters understands that the system in effect prior to 1937 was not practical, and it was necessary to amend the law in 1937 to provide a practical system to obtain annual inventories of the game harvest. From the inception of the new system the Commission decided to carry on an educational campaign in an effort to give an opportunity to those who without any thought of violating

*(Continued on page 18)*

# Log of Rattlesnake Shack



SHACK IN THE MOUNTAIN*

There's a legend of the Valley
  Where the winding stream and trail
Lead the footsteps of the Pilgrims
  Seeking Nature's Holy Grail
There's a Temple built of timber
  From the forest round about
In the clearing, on the mountain,
  For the worshipper devout.

In this shack of small proportions,
  Tho it harbor all who ask
Come those whose minds are troubled
  By the weight of earthly task
Seekers after peace and earth
  And trees and sky and space
All have gathered here to find—
  The smile on Nature's face.

On her cheek the blush of sunshine
  Or the mellow light of moon
Then darkness for protection,
  And winds that waft her tune
Her tresses are the fleeting clouds,
  Her arms the ground below
To forget about our sorrows
  It is here that we would go.

What is lonely in the forest,
  When your shelter is a shack
And your neighbors of the wildwood
  Encroach both front and back
From the lowly creeping plantlet,
  To the tallest of the trees
The deer and squirrel and bird life,
  The butterflies and bees.

Read their romance in the winter wood
  Or in a summer view
It's all a novel problem
  For the mind to learn anew
Drink deep from the spring of life,
  That wets the moss and stones
You will gather inspiration
  And rest your weary bones.

* Written February, 1934—by A. B. Champlain.

## *By A. B. Champlain*

***This is No. 7 in a series of nature stories by Dr A. B. Champlain, State Entomologist, who has spent every week end for ten years at Rattlesnake Shack***

●

BEGINNING another year, and over a dozen have passed since the first exploration! January is tough. Cold, snow and sleet, and we ofttimes sink below the crust as we ride the trail. Chains get us through many times in spite of winter hazards, but there have been eventful days when the car was abandoned to the drifts and we trudged the remaining miles to camp.

Winds and storms bluster their way down the mountain and through the valleys. Trees crack and sometimes crash to earth when their root-holds in the rocks give way. Branches and limbs break off and clutter the ground but the little gray shack still nestles in the clearing.

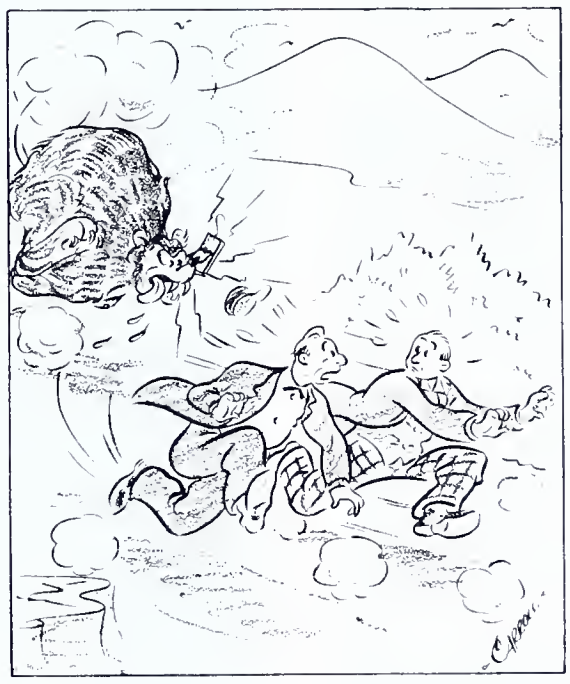
Comforting to us, the one little room has a fascination all its own. It is equipped only with necessary articles arranged against the original brown boards with a small central space for movement. Overhead the smoky ceiling is draped with silken strands and festoons of cobwebs, placed there in careless asymmetry by our spiders. The only touch of present day civilization is that well known gossip of the air, our battery radio set, which brings to these silent places news of the world.

During this month our most frequent temperature ranges around 30 degrees Fahrenheit our highest January record was once 56°-while shiver, shiver, a number of times zero was registered and twice 11° below.

The New Year's Holiday has been celebrated over the Januarys at the shack in proper fashion. Our menus would please the most fastidious of epicures. On many of these occasions we have been joined by friends who braved the weather to see what is going on in the hills after most camps had been closed for the season. We were always pleasantly surprised to find plenty of game still in the shack vicinity for the mountain creatures had all written us messages, by tracking in the snow, which gave us a clue to their identity.

And now friends if I don't get January across, it's my fault for believe me, the interest is there. All around us our winter woods now appear bare and lifeless, while in the distance the trees seem to gather together forming a purple haze. Snow bound, the earth is hidden from the wild folk, by a white mantle. The hard top crust of the blanket often makes it tough for birds and animals to find food. We remember this when we purchase our supplies—and suet, seeds and other forms of game food are added to our list. Suet is placed upon hooks on the side of our feeders, which are filled with grain. Several types of feeders were used but the most satisfactory are those made by Jimmie Schwartz and Roger Baker, over the designs suggested by the Game Commission publications.

Seeds and grain are also scattered plentifully about on the ground, from which patches of snow have been removed. From the windows of the shack we observed our guests and are rewarded for our efforts. Early in the morning the entertainment begins. First a flock of goldfinches, dressed in their modest winter coats, gather about. Like members of the polar bear club, they take a cold plunge in the pool below the shack before breakfasting. Some squabbling and shoving is noted, but generally this little flock of a hundred birds is very well behaved. Juncos and Cardinals also join the gathering on the cleared ground, while the Chickadees Titmice and downy and hairy Woodpeckers attack the suet upon the feeders. The Chickadees and Titmice arrived upon the idea of providing for a future day. Each one, after eating a bit, flew off with a portion of suet



**"By the way—just where did you get your trapping experience?"**

and parked it in some crack or crevice in the trees nearby. Back and forth they traveled, one after the other, and we wondered whether they would remember where their cached provisions were placed, or whether some other creatures would benefit thereby.

Distribution of corn made other entertaining episodes. Carrying bagfulls of "ears" into the surrounding forest was a weekly chore. We distributed the ears of corn over the game trails, placing an ear in a tree crotch, impaled on a cut twig, or slipped into a hollow log or beneath some protected covering. All this in the spirit of cooperation with our wild neighbors as well as in our desire for fresh air and exercise.

Among our bird visitors during January in addition to those mentioned, are cedar waxwings, robins (certain years) purple finches in flocks, tree sparrows, nuthatches, brown creepers and the screech owl. Of course there are grouse, whose tracks in the snow beneath the parked ears of corn indicate their "thank yous" for value received. Our squirrels have discriminated by eating out the germ of the corn kernels; dropping the remainder for some other hungry passerby.

Gray squirrels may often be found in their nests during January. One squirrel, part albino with a white tip on his tail, remained in the shack vicinity for several years. We knew him as "whitey tail."

An occasional weasel was seen around camp. During this month weasels wore their ermine coats of white or part white and red. Once we killed a big fellow who persisted on climbing the bird feeder. Perhaps the suet attracted this weasel or perhaps he hoped to get one of our bird guests.

Gray squirrels did not seem to mind the weasels and they frequently appeared together around camp.

Fox tracks often encircled the camp and skunk tracks in the snow indicated that our pets still prowled about, Deer tracks may be seen during January on all trails from the top of Stony, to the creek bottom below. On Sunday we watched from the window of the shack. Several deer were present eating the corn from the cobs parked around camp for the squirrels, Even had time to make some rough sketches of them.

There is a challenge in the loneliness of the snow clad forest that encircles the shack during mid winter. What mysteries remain to be solved aside from identifying the animal tracks in the snow or trying to figure out why some birds remain with us to brave January's icy breath.

A woodpecker's tattoo rings out in the solitude and if we make this bird's acquaintance we will find that the winter woods provide its subsistence. At any rate, with suggestions from this beneficial bird we also go in search of life's smaller children. Insect hunting is a fascinating form of wild life investigation; and if once undertaken establishes a continual challenge for future expeditions.

Insects exist unseen in the forest about us, even in January. Primary tree killers such as bark and wood borers are present in certain types of timber. Secondary insect pests that follow up this work of destruction may also be observed, while accompanying them we may find other insect hangers on, such as predators and parasites who derive their nourishment by attacking the destructive species. Thus we see that the silent forest is teeming with life.

On the ground we find the decaying logs, which if opened up would reveal to our eyes a prize package of insect activities. It is these tiny creatures, who in all stages of growth are reducing, by their feeding habits, the debris of the forest floor into a condition in which it may again be utilized as soil and fertilizer.

All of these complicated activities may be observed in the winter woods. If we would enjoy a continual hunting season throughout the year with no bag limit, we should tackle the insect hordes. These tiny creatures play an important part in the life of birds, animals, fish, trees and all out doors.

Broadheads used by modern Robin Hoods are made of tempered spring steel.

# Modern Robin Hoods

*By Charles Elliott*

DON'T search for Noontootly Creek on a modern road map. You won't find it there. Noontootly lies at the end of a narrow, winding mountain road and is one of the finest trout streams in the South. But this is not a story of trout.

The site for the wilderness camp was on Noontootly. Ranger Arthur Woody selected that location where Frick's Creek plunged down over the rocks and splashed against the waters of Noontootly. He said it was the only level spot "on the whole durn mount'in." So they packed in tents and blankets and cots and cut an enormous pile of wood. That was all. The camp was ready for the hunt.

The next day the hunters trooped in, twenty-two of them, armed with food, personal equipment and bows and arrows. They were the first deer hunters to cross the Blue Ridge with bow and arrows in more than half a century. And they were enthusiastic. The deer were there. They had jumped big bucks out of the road on the way to camp. The United States Forest Service and the State Wildlife Division, working together, had built up a deer herd on the Chattahoochee Forest Management Area of some 2,000 animals.

I was one of the archers who had been selected for this five-day wilderness hunt. To my mind there could be no grander sport than bringing home a ten-point buck killed with an arrow. There is something about the sturdy pull of osage orange or yew, something in the music of an arrow sailing through the air, that pinches little sensations under my skin.

But my poor marksmanship with a bow is unexcelled. I doubt if I could commit suicide with my bow drawn in reverse. But such a minor detail did not tone down my enthusiasm. I was a player in this game,—once a necessity, now one of the youngest sports of the human race.

Until dusk the archers continued to arrive. When night had seeped into the laurel thickets and hemlocks of the cove, Ranger Woody built a fire in the clearing, and its blaze brought welcome light and warmth to the human circle that grew around it. Late October at an elevation of 3,000 feet, even in the southern highlands, is cold.

"What are our chances for a deer?" someone asked the ranger.

"There's plenty of big bucks a-roamin' these ridges," he replied evasively.

The hunter who had asked the question was a persistent nimrod. "Do you think we'll kill many deer?" he demanded.

Ranger Woody kicked a burning log back into the fire. "No," he said.

The talk ceased abruptly and one or two of the modern Robin Hoods thrust out their chins belligerently at the ranger. His words were a loaded challenge, cast like a powder-packed bomb into the fire.

"Why not?" three voices asked at once.

The ranger stuck a match between his lips and looked around the circle of hostile faces. Then he pushed his battered hat back on his head in a defiant movement. "I'll eat th' nose, raw, plumb to th' teeth, of ary deer killed by bow n 'arrer," he stated.

He wasn't joking. The men around the campfire didn't take the statement as a joke. Dick Barbour's lean jaw muscles rippled. I saw the sinews tighten in Otto Hart's wrist. Hart had come down with four companions from Evansville, Indiana, for the hunt. He was one of the champions of the nation and had hunted deer in Michigan with his "bow 'n arrer."

That night around the campfire, Clint Davis of the southern region of the Forest Service told the archers the story of this

The archer-hunter draws his seventy pound osage orange bow—power to bring down a deer or other big game animals.

*Reprinted from the Dec. 1941 issue of "American Forests" by Special permission*

game refuge. "Fifteen years ago," he said, "Ranger Woody bought deer with money out of his own pocket and planted them in the Rock Creek watershed. Later the Forest Service trapped deer where they were overstocked on other national forests and brought them here. The original herd of seventy has grown to 2,000 in about twelve years. It proves what game management will do.

"The State Wildlife Division employs special agents to protect this management area. The mountaineers living in valleys beyond the forest boundaries have cooperated almost to a man in helping to protect the deer. This year we opened the game refuge to the organized hunt in which you are now participating, to take off the surplus animals. The gunners will follow the Robin Hoods. We estimate that the total number of deer killed by both arrows and bullets will be around thirty."

Several of us looked toward Arthur Woody, who sat beside the fire, chewing on his match, as if to say, "There is one man here who thinks we'll kill a deer." But the ranger did not comment on the statement made by his fellow member of the Service.

**At his Noontootly Creek camp, Archer W. J. Barbour files arrowheads in preparation for a deer hunt in the Chattahoochee National Forest of Georgia.**

The campfire had burned to amber ash, when, one by one the men rose and sought the comfort of their blankets, for the five mile walk down from the ranger station had been hard on unseasoned muscles. With all the grace of a 200-pound black bear, Arthur Woody rolled to his feet from where he had been lying beside the fire.

"Where are you going?" I asked.

"My bed's up at th' station," said the ranger.

"Why not stay here," I suggested.

He grinned. "Them cots is too puny," he replied, and stepping beyond the circle of light cast by the campfire he was gone. Not more than half a dozen of us were left at the campfire.

"I was going home tomorrow," said Jack Troy, sports editor, "but now I can't. I've got to stay and see the ranger lose his bet."

"He'll lose," said Dick Hughes, one of the Hoosier archers, "Most every species of big game animal in the world has been killed by modern bows and arrows."

"The bow and arrow was used long before guns, wasn't it?" Jack asked.

Dick Barbour looked up from his task of whetting a steel arrow point to a razor edge.

"Arrow heads date back 50,000 years," he said. "The anthropologists say arrows without stone points were used long before that. The arrow was the primitive weapon of nearly every land on earth, except Australia. Gunpowder was not invented until after the year 1300. There was a lot of game killed in the 50,000 years before guns."

**Among the first deer hunters to cross the Blue Ridge with bow and arrows in half a century, these modern Robin Hoods go to their woodland stands.**

"Many wars have been won with arrows, too," Jack said. "If I remember my history, William the Conqueror won the Battle of Hastings by having his Norman archers shoot their arrows into the air and drop them behind the English shields."

I reached over and took the arrow out of Dick Barbour's hand, and nicked my finger testing the sharpness of the point. "That can do some damage with a fifty-pound bow behind it," I said.

"What d' you mean, fifty?" Dick Hughes snorted. "My hunting bow has a pull of eighty pounds."

He stepped into the tent and brought out his bow, a short, thick, powerful weapon. I could hardly bend it.

"The Indians didn't have bows this strong," I said.

"The average pull of the American Indian bow was forty-five pounds," Dick said. "But bows of primitive tribes are all sizes. Some of the pigmy tribes of Africa have bows which are three feet long and shoot an arrow weighing less than one-fifth of an ounce. It's quite different from the bow of the Siriono Indian, the largest known. It is eight feet long and shoots an arrow the same length and an inch thick."

"Perhaps they needed powerful bows," I said, "to drive home big arrow heads into big game."

Dick Barbour grunted. "That's what most amateurs think. But the large arrow heads were chipped for small game, like rabbits and squirrels. Those very small points that most people call

*(Continued on page 21)*

**No deer in five days of hunting, but archers find the fellowship of the deep woods a real bag—an invitation to return with their bows another year.**

# Conservation and Gardens

*Editor's Note: A little over two years ago The Pennsylvania Federation of Women's Clubs allied itself with the various conservation agencies of the Commonwealth, and the Pennsylvania Federation of Sportsmen's Clubs, in an effort to promote conservation education more widely in the public schools. Since then it has been doing a swell job through its county conservation directors. Mrs. Stott's little article points the way towards even greater accomplishments.*

*By Mrs. G. Ira Stott*

Photo C. Gordon Krieble.

**"Guard our heritage—the soil, water, mineral, vegetable, and animal life." Encourage our school children to plant a "Memorial Forest."**

WOMEN, as homemakers, realize our responsibilities on the home front are heavier than ever before. Because of her concern for the next generation, woman is more able than man to see the present picture in relation to the future. We look to our children, our future citizens, to carry on and "Guard our Heritage."

Real defense begins at home—and today's youth. It's not the tot but his older brother and sister we need to worry about. In Britain's first year of war, juvenile offenses among children under 14 increased about 41 percent, and among children from 14 to 17, about 22 percent. With our many tasks in doing our part to win a speedy victory, we must not neglect or forget our youth at home, and keep them occupied with wholesome recreation and worthwhile projects.

The war program has made everyone realize how indispensable and important our natural resources are—products from the soil and water; food, water power, timber, fuels, metals, oil, helium, and numerous other products—an abundance of which is the foundation stone of our Democracy—and the elements for which the Axis powers are fighting. As club women, our challenging job is to guide public thought through programs and projects, the press, radio, public forums, home and school, to remedial action in the conservation of our natural resources, and keeping our renewable resources productive.

Theodore Roosevelt said: "Here is your Country. Do not let anyone take it or its glory away from you. Do not let selfish men or greedy interests skin your country of its beauty, its riches, or its romance. The World and the Future and your very Children shall judge you according as you deal with this Sacred Trust."

Had the past and present generation mistreating our natural resources, we would not be so concerned as to what the future has to offer for the next generation.

What are we doing about it—and how can we help?

By having Conservation Education as a part of the curriculum of every Public School in Pennsylvania!

Now is the time to start a civic project realized how we were taking for granted and for "A Memorial Forest" in your community and county. Urge all organizations to join together and buy unceded and tax delinquent lands, or abandoned farms. With the cooperation of the Pennsylvania Game Commission, Department of Forests and Waters, and your Forest Ranger, purchase trees and seedlings for reforesting this land. Turn this land over to the Schools and school children in your community in the form of a gift to be taken care of from year to year in the following manner.

Under proper supervision have the children plant and care for this ground. Children love to do things with their hands.

Request they plant a "Victory Tree" to honor each man in the service. Trees could be marked with each name. Such a tribute to our boys will cheer them as well as strengthen morale at home. Our Parks and Public Squares are filled with markers and statues now from previous wars.

Set apart one section for the planting and preserving of wild flowers, another for a bird sanctuary—have the school children build birdhouses and feeding stations. In this plot plant berried trees, vines, and shrubs attractive as food for our feathered friends. One of our most reliable authorities estimates the total national value of wildlife, economically, at more than a billion dollars each year. Birds consume vast hordes of insects and pests, which, unchecked would destroy all growing things. We also realize that many of the products in spray materials are needed for military use.

This "Memorial Forest" would soon afford the children a picnic and recreational park. By actually doing—the children will not only be learning—but serving.

In conjunction with this project, secure the following pamphlets and have them placed in every town and school library and elementary school:

Federal Security Agency, U. S. Office of Education, Washington, D. C.

Circular No. 184—Films adapted to Teaching Conservation in the Elementary School.

Bul. 1937 No. 4—Conservation in the Education Program—10c.

Bul. 1938 No. 14—Teaching Conservation in Elementary Schools—20c.

Bul. 1939 No. 14—Curriculum Content in Conservation for Elementary Schools—15c.

Conservation Excursions, Bulletin 1939 No. 13. Very useful—15c.

American Nature Association, 1214 Sixteenth St., N. W., Washington, D. C., have a very highly recommended series of four books called "My Land and Your Land Conserva-

*(Continued on page 22)*

Photo C. Gordon Krieble.

**Learning by doing is the best approach to conservation education in the primary grades. Here some youngsters are planting seedling trees for a local sportsmen's club.**

# Killing Techniques of the New York Weasel[1]

*By Fred A. Glover*[2]

IT IS generally known that the New York Weasel *(Mustela noveboracensis noveboracensis)* obtains the greater part of its food by preying upon other animals. The method that a weasel uses when killing prey, however, is not well known. Because of weasels feeding upon other animals, they have been considered an important predator in Pennsylvania. The Pennsylvania Game Commission has paid out thousands of dollars in bounty on this mammal each year. Hamilton (1933) mentioned the characteristic position of the weasel when killing mice.

This study was carried on from July 1941 to October 1942 under the supervision of Dr. Logan J. Bennett, U. S. Fish and Wildlife Service and Dr. P. F. English, Department of Zoology and Entomology, The Pennsylvania State College.

To better understand the killing techniques of the weasel, the writer exposed fourteen live house mice *(Mus musculus)*, five deer mice *(Peromyscus* sp.), three brown rats *(Rattus norvegicus)*, six cottontails *(Sylvilagus* sp.), and four Ring-necked Pheasants *(Phasianus colchicus torquatus)* to weasels in a series of killing experiments. At different times over a period of sixteen months, fifteen weasels were observed in the killing technique experiments.

Live mice were offered to two of the weasels. After a brief chase each weasel killed a mouse with a quick, crushing bite through the top of the skull. The mouse was held by the head until it stopped wiggling. At this time fresh chicken heads were presented to obtain the reaction of the weasels. The weasels gave no attention to the chicken heads but continued to guard or eat the mice they had just killed.

When dead mice and fresh chicken heads were presented simultaneously to three weasels, two of the weasels immediately took possession of the mice while the other weasel showed a preference for the chicken head.

In consuming their prey, the weasels showed no food preference between flesh, blood, and brains. They, apparently, seemed to dislike the intestines.

To determine the method of killing, the investigator released fourteen mice singly and at different times in six separate weasel cages. Twelve of the mice were killed by a powerful bite on the posterior part of the skull and two mice were killed by bites in the shoulder region. In most instances the method of killing was the same. After a few brief dashes, the weasel grasped the quarry with the forelegs and almost at the same instant clamped its jaws down with crushing force on the head or shoulder. The body and hind legs of the weasel were meanwhile occupied in a wrapping and hugging grip on the body of the struggling prey. The weasel shoved the prey in close to the stomach with the hind legs, and the kill was made in a reclining, semi-curled-up position. At each convulsive jerk or movement of the victim, the weasel grasped it with renewed vigor. Considerable mouthing of the prey took place after the period of killing.

To supplement the first observations on killing habits, three live brown rats were released in three separate weasel cages. The following description is typical of each case. At first there was considerable squealing, shrieking, and vigorous leaping by both animals. At no time did the weasel show any sign of fear. The rat, on the contrary, showed fear but fought back. The weasel was the aggressor at all times. Repeated lightning-like rushes and a quick bite on the nose were executed by the weasel. The weasel made many unsuccessful attempts to fasten his jaws upon the neck of the rat but the skin on the neck of the rat was thick and loose. The rat squealed and chattered frequently. After a brief rest the weasel renewed the attack. This time he struck for the neck region. The weasel renewed the attack with sudden, deliberate bounds, and always struck with an open, hissing mouth. Finally a grip was secured at the base of the rat's ear. Immediately the weasel grasped the rat behind the forelegs with his front legs. The back legs of the weasel clasped the haunches of the rat. A threshing, rolling fight ensued, but the weasel never relinquished his hold. The two fighting animals rolled over and over, the weasel always remaining on the back of the rat. When the rat rested, a new hold was taken by the weasel. Finally the weasel secured a hold at the base of the skull and near the ear, and a light crunching sound followed. Spasmodic kicks of the rat soon stopped, indicating that it had died. The weasel relinquished his grip. No portion of the rate was eaten. Indications from this struggle indicated that weasels can kill rats but do not always eat them. Figure 1 shows a skull of a weasel-killed rat.

When the cottontail moved the weasel carried the mouse up on the side of the cage to protect his kill.

Six cottontails were used as a sample in an experiment to determine how weasels killed these small game animals. The cottontails ranged in size from 418-1103 grams. The weasels varied in weight from 137-290 grams. Four of the cottontails were killed by a bite on the top of the head and ear. The other two cottontails succumbed from serious wounds in the neck region. It took approximately four minutes in each case for the weasels to make the kill. The general method of attack was the same for a cottontail or rat. In five of the kills the weasels did not attempt to eat any of the prey immediately. In one case, the weasel licked the blood from the hair around the wound but he did not suck any blood. Svihla (1931) reported that at no time were weasels observed to suck the blood of mice. The fact that the victims were injured by a bite on the back of the head has led observers to conclude that the weasel sucked the blood and was satisfied.

In three instances neither of two weasels could be induced to make a determined attack or kill the cottontails.

In one experiment a cottontail and a house mouse were released simultaneously in a weasel cage. At first the weasel did not notice the mouse because it was climbing on the side and top of the wire cage. The weasel started to approach the cottontail as if to attack when he noticed the mouse. Suddenly, the weasel turned from the cottontail and grasped the mouse. Several short shrieks were uttered by the mouse as the weasel ran about the cage carrying the mouse in his mouth and hissing. The mouse was

*(Continued on page 23)*

[1] Paper No. 39 from the Pennsylvania Cooperative Wildlife Research Unit. Fish and Wildlife Service (U. S. Department of The Interior), The Pennsylvania State College, Pennsylvania Game Commission, and American Wildlife Institute cooperating.

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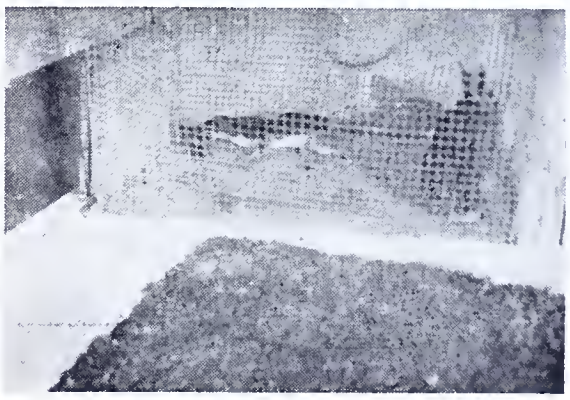
[2] Graduate Assistant, Department of Zoology and Entomology, The Pennsylvania State College.

The weasel left the cottontail and immediately attacked the mouse.



The weasel carried the mouse about the cage hissing and keeping out of the way of the cottontail.

# The Twenty-three Pounder

*By Paul P. Prugh*

***And an accompanying short story by W. A. Pursley. Shown opposite with a big one.***

**W. A. Pursley of Laurelton, with large coon bagged recently. Photo and story furnished by "Jake" Phillips, Pillow.**

NOVEMBER, the hunter's life-time. Yes, the hunter's paradise was here again. The smoky haze of Indian summer blanketed the out-lying ridges as far as the eye could reach, and at night, the nipping frosts turned the oak and elder thickets into a gallery of red and yellow paintings. The hounds, their coats sleek and shining from their summer rest, pointed black muzzles skyward, scenting the breeze, anxious to be off again on the trail of the cunning ring-tails.

Old Bill, the memory of six moons of this autumn wonder tucked away in his black and white head, knew what it was all about, as each evening he pranced and tore about the kennel yard; and the black pup, too, seemed to remember his first year of hunting. Well, I couldn't blame them, for I, too, felt the urge.

This particular evening held the promise of rain, as Rich, Bob, Ken, Jimmie, and I started for Rupp Hollow with the hounds in the back of Rich's car. It looked like a fine night to hunt if it didn't get too wet. We started down the old road into the hollow, the hounds already splashing along the small creek which wound down the ravine, and on through the corn and pasture fields. We had just reached the small bridge when Old Bill opened up on the other side of the corn field, and soon Black Ace's bawl filled the night with its mournful tones.

We started up the hollow, following the hounds, when Rich, who was a little ahead, yelled, "Hey!" We stopped, and heard it coming, above the noise of the hounds, a sheet of rain down the hollow. Yes, sir, it really rained, and we knew that coon chase was concluded, as the track would be washed away in a very few minutes. The hounds soon came in, shaking the spray from their wet coats all over us, and we headed for the car, as a crow flies, the nearest way.

As we started back to town, lo and behold, the rain stopped—just like that! It was only about 10:30, so I asked the boys how about another try. Bob and Rich thought they would have to go on home as they lived some distance from town, and Jimmie concluded he had about enough for one night. I still wasn't satisfied as I said to Ken, who lived across the street from me and always hunted with me, "How about us going down to the bottom of the hill below town and hunting a couple of strips of woods back into town." He agreed, and soon we said goodnight to the boys and started up over the steep wheat field, to the corn along the Rosborough woods.

We weren't more than half way up, when the hounds broke into full cry in the corn field above us, as lickety smash through the thicket and into the timber they went. I wondered at the time if the fellows in the car we had just left heard them, but guessed they were a little too far down the road. The chase only went a few hundred yards into the woods, and both dogs were bawling treed for all that was in them. Puffing and gasping for breath we finished our climb, and were soon at the scene of all this commotion. Old Bill, between barks was trying to chew a small sapling off, as was his habit at the tree, and Black Ace bawled, his trumpet blasts almost sending the shivers down your spine.

We looked the tree over, a giant oak entirely void of leaves and still dripping wet from the recent rain, and soon concluded it was a den tree. Ken said he was going up and see what he could see if he could climb it. After much puffing and blowing, he reached the first limb, and from there the going was not so hard. Up near the top, he said "Here he is in this hollow limb, and he's safe as far as we're concerned." Ken was giving the coon a talking to, berating him for picking a tree with a hole in it, etc., and slapping his wet gloves against the limb at which he seemed to have a grievance, when I heard him yell, "Look out below." I guess that coon decided he would rather risk his life in a jump than listen to Ken's cussing. Anyway, he came out of that limb like a shot out of a gun, down through space, and as I ducked, hit the ground with a thud about ten feet from me.

The dogs both made a dive for him, and old Bill's teeth took anchor, but they were not as sharp as they used to be, and in the skirmish the coon broke away and shot up another large oak a few feet away. I thought the dogs would go crazy trying to climb that tree after that coon, and boy what a coon! He looked as big as the dogs from what I could see of him.

I had almost forgotten Ken, who was whistling and singing up in the other tree top. "Boy! if I had that rifle up here," he hollered down. "He looks as big as a barn sitting over there on that limb across from me."

"Come on down," I told him, "But be careful on that wet tree. He'll stay up there this time 'till we bring him down."

When Ken hit the ground we started to figure where to shoot from. My light was growing dim, and I could still see his bulk against that gray sky. Ken decided he could hit him, and after a few tries, a twenty-two long found its mark. Once again that bunch of fur hurled through space, and this time the dogs landed on him almost as soon as he hit the ground. He still had plenty of fight, and gave them about all they could handle, but they finally got him subdued after much growling and fighting.

"Stay back now, boys, let's look him over," I told them; but they seemed hard of hearing, as first one, and then the other, would jump in for another bite. Guess they wanted to make sure he wouldn't get away again. We finally got the dogs quieted enough that we could have a look at our catch. I knew right then and there it was the largest coon I had ever seen. An old grand-pappy, I concluded.

We were about a mile from town, and going in we took turns carrying the coon and leading the dogs. One was about as bad as the other. Ken swore that coon weighed a hundred pounds before we covered that mile, so we decided next morning we would take him up to the store and weigh him. Well, he did weigh almost a fourth of that hundred, twenty-three and a fraction pounds.

Many a night that coon had fooled the hounds and beat them to a den tree, but this night we had surprised him. He couldn't see our lights coming up over the steep hill, and the dogs were on him before he had a chance to pull any tricks. In fact, I think the pup had the end of his tail going down through the thicket, the way it sounded.

Next morning Jimmie, who lived next door to me, and who had quit the hunt with Rich and Bob, said quite dolefully, "Loily-Hanna, Dod-Doz it!!! We never get a coon when I'm along."

### PADDY MOUNTAIN COON

ON November 23, 1941, old Red, my dog, and I started out for 'coon alone. It was a very dark night, and raining a little, which made it an elegant night for hunting. I was hunting along Paddy Mountain when I noticed the dog had struck a trail and headed for the mountain. I listened for "Tree" music which soon came. When I got to the tree I found old ringtail on a large red oak about 60 yards up from the foot of the mountain.

After carefully looking over the tree with my flashlight I saw the animal and got ready to shoot it down with a small 22 Cal. rifle. When I shot the ball hit the limb and frightened the old boy and he jumped off.

When the 'coon struck the ground, old Red was on him, and the fight started down the mountain. I grabbed my lantern and started after. Old Red was trying to get his hold under the neck. He finally got it, and bit

*(Continued on page 23)*

# Midnight Crow Shoot

*By Hugh B. Wagner, Jr.*

IF YOU are one of those trusting souls who allows himself to be lured into searching for those mythical trout-infested streams whose banks have never felt the tread of a white-man's foot, (after the first thousand) lakes where the bass are all monsters and strike anything that moves, or to a territory one hour's drive from town, where the game is so abundant your gun would be highly impractical, you might as well go on a night crow shoot.

One of the first requisites for such a hunt is that the hunter himself be able to "take it and like it"—like to stumble over fences, plough through mud, walk two or three miles over the countryside, bump into trees, run tree branches in his eyes, and lose great quantities of shut-eye. In spite of these reverses, I enjoy night crow hunting to the fullest extent. I can recommend it to any sportsman as a welcome relief from the long winter evenings spent in anxious contemplation of the coming trout season.

The incentive for my first night crow hunt was a crow contest sponsored by a local sportsmen's association. An old friend of mine advised me to spend a few evenings in night hunting if I wanted a prize.

After asking a half dozen friends to accompany me on a night hunt, (they only smiled a little sympathetically and offered excuses) I found one who consented to go along.

A few weeks later, on a January evening around four o'clock, Dick and I started on a tour of the rural roads crisscrossing Lebanon County. Half an hour or so later we sighted a thin line of crows winging their way towards the roost. From then on we took the roads leading closest to the direction of the flight, and after a ride of a few miles found the conversion point for it and several others coming from three different directions. We parked the car on a hill overlooking a small woods and trained the field glasses on it. Hundreds of crows were already perched on trees throughout the woods, and hundreds more were pouring in by the minute, cawing greetings as they arrived. From the noises issuing from the woods, (it could be heard for a quarter mile) it seemed all were related and in the act of exchanging shrill salutations.

Occasionally a great flight of crows would rise from the trees and mill around over the woods, settling down a few minutes later. A corn stubble field bordering the woods was black with the crafty fellows. They kept coming in steady streams until almost dark.

Feeling certain the birds would stay and roost in the woods, we went home anticipating a good hunt that night. At eleven o'clock we drove out to the roost with the shotguns and plenty of shells. Nary a crow was to be found, the woods being entirely deserted. Not having any idea where to look for them in the confusing darkness, there was nothing to do but go home. Afterwards, through experience, I found out that in many instances the clever rascals converge at one point, remaining there until the whole flock has arrived, thence flying in a body to the roost.

Apparently the leaders select the site for roosting, as they seem to know exactly where to go almost instinctively. In many instances the flight to the roost takes place only five or ten minutes before dark. However, depending upon how recently or often crows are disturbed, they will stay and roost at the original conversion point. This is not a set rule though and it is wise, if not necessary, to keep a close watch on them until darkness arrives.

A week or so after our first experience, Dick and I again located a roost near a surfaced highway not far from the city. Ten o'clock that night found us trudging over frozen ground to the woods. As we neared, the black congregation could be heard talking among themselves in low gutteral sounds. They became louder as we entered the woods, and we realized our approach was sensed. Aroused by our footsteps, several crows flew from their perches as we advanced nearer to the center of the woods where most of them seemed to be. Suddenly I grabbed Dick's arm and pointed excitedly to a tree ahead of us which seemed alive with birds (appearing as dark blotches crows are often confused with clumps of dead leaves clinging to the trees). Counting up to three we let drive with four shots from our doubles. Dark shapes thudded to the ground, while the air was filled with a thundering roar of wings, caws, and crows as they took alarm and fled.

After obtaining the heads of about a dozen of them, we decided to start out in the direction from which we heard a low murmur of many voices and an occasional loud "caw" "caw" from a captain or leader. The direction of sounds took us along the edge of a wheat field, where we stumbled into a barbed wire fence and downhill towards a gully lined with several large trees. When we were within a hundred yards or so of the trees, a great number of black blotches could be seen

*(Continued on page 22)*

Photo by W. L. R. Drake.
**If you want a dog that's fit all the time, not only in hunting season, you must take care of it.**

# The Canine Corner

*By Evan C. Stineman*

An open forum for dog owners

COLD weather ahead suggests a few precautions for the comfort and well being of our hunting dogs. Lay in a good supply of straw. A bale at your local feed store will see your dog through the winter and will only cost in the neighborhood of 65c. Provide a good box suitable in size for your dog, not too large, as his body must generate enough heat to keep the box warm through the cold nights ahead.

If a runway cannot be provided and the dog must be chained, be sure there is sufficient chain to allow him to jump up on his box for sunning on those warmer winter days. A change of straw once a week will keep the box from becoming musty and serve as a dry cleaner for his coat.

A large majority of dog owners are feeding the dry dog feed. Now here's a suggestion to try. Mix a couple of spoonfuls of lard or a handful of fat in the dry dog food, stir in the instructed amount of water. We have found that this is a decided help in keeping our dogs in just a little better shape during the hunting season and the winter months.

A word of caution in the use of the dry foods in the meal form. Leave your food set for fifteen or twenty minutes after mixing. Do not feed in a mushy state. Recently a letter came to my desk asking whether or not table scraps, with potatoes and other excessively starchy foods eliminated, would be a suitable diet for a hunting dog.

Now, not withstanding circularized testimonials, it is our opinion, based on our own experiences, that the table scraps from the average family will make as good a diet for a working dog as can be had.

Does it hurt a dog to miss one day a week feeding is another inquiry. There is an old English saying "Feed the hounds six and the kennel master one," this probably going back to the days when the Kennel Masters were not overly paid and they felt inclined to skip a day's feeding each week and pocket the money. But it is a fact that a goodly number of the English packs miss one day feeding each week during the seasons of the year when they are not hunted.

In our kennels we feed on the average of fifteen dogs the year around and it has been our practice for years to skip Saturday feeding during the periods when the dogs are not being worked. Our advice in this is to try it, and if you see your dog isn't staying in flesh go back to the seven day a week feeding. Possibly some of you boys have some opinions on this that you would care to have aired, which brings us to another matter we want to air right now.

This column is definitely open to every dog owner and for that matter to anyone who thinks he has a grudge against dog owners. We have never been refused all the space in the GAME NEWS we have asked for and I doubt we ever will. What is of interest to you is bound to be of interest to every one of us, so why not send in your contributions in care of this corner and we'll see that it gets into print. Tell us about that great day you had with the hounds or bird dogs and give us pictures to prove it.

If you have any veterinary problems shoot them in and Doctor Prothero will try to iron them out for you. There has been so much misunderstanding and misinterpretation of the SPECIAL DOG TRAINING AREA law that we are asking the Editor to publish in connection with the "corner" the meat of the law. We think it is a good one BUT what do YOU think? Another shot—we will gladly announce the dates of any dog trials, dog club news and publish the reports of your dog trials if you will only send them in. Secretaries please note: Publication deadline is the 15th of the month for the next succeeding month's issue. In other words copy for March will be due January 15.

### Legal Regulations for Special Dog Training Area

Under the Game Law an organization of twenty or more members, or at least twenty citizens of this Commonwealth may apply for a permit to establish a special dog training area by payment of a registration fee of $10. The land upon which the training area is established must either be owned or legally controlled by this organization or group of citizens.

Dogs may be trained on the area at any time during the entire year. The area may not be less than 100 acres nor more than 250 acres. Not more than four special dog training areas may be established in any one county.

Persons to whom the permit is issued are required to stock each year at least twenty-five pieces of game per 100 acres, at their own expense, under the supervision of a representative of the Game Commission, unless the Commission has determined that the area is already adequately stocked. Permittees may train either their own dogs or dogs of other persons on the area, or they may permit others to do so under such conditions as the permittees shall adopt with the consent of the Commission.

No game hunting is permitted at any time upon the area either by the permittees or other persons. However, hunting or trapping of vermin and predators for the purpose of exterminating these creatures is possible on the area. The permittees or persons authorized by them may hunt or trap vermin.

Boundary lines must be posted prior to October 1st of each year by notices 10 x 12 inches in size, the wording for which is given in the Game Law. These notices must be not more than 100 yards apart.

The penalty for violating any of the above provisions of law on the area is $25. In addition, to cut, injure, or destroy any boundary, fence, wire or poster upon the area is punishable by a fine of $10.

—Chas. F. Stambaugh,
November 18, 1942.

Photo by Leo A. Luttringer, Jr.
**Teach the youngsters to love their canine friends, too.**

## *Standard Procedure or Running Rules for Beagle Field Trials Approved by the Beagle Advisory Committee and by the Board of Directors of the American Kennel Club*

*The following Standard Procedure or Running Rules for the conduct of Beagle Field Trials has been drawn up and recommended to the American Kennel Club by the Beagle Advisory Committee and the parent club for Beagles—National Beagle Club—and has been approved by the Board of Directors of the American Kennel Club.*

*Field Trial giving clubs will follow this Standard Procedure as closely as possible in the conduct of their trials. Local conditions may make slight variations necessary and changes and improvements may suggest themselves after the Rules are in actual operation. Clubs after trying out these rules at their Fall, 1939, Trials are requested to notify the American Kennel Club in writing of any suggestions they may have for the improvement of this Procedure so that the National Beagle Club and the Advisory Committee may consider these suggestions at their Spring meetings.*

*All suggestions must be filed with the American Kennel Club by April 1, 1940.*

*Final approval by Beagle Advisory Committee at its meeting April 2, 1940, and by the Board of Directors of the American Kennel Club May 14, 1940 for permanent use of Beagle Clubs.*

### Management

RULE 1. The Field Trials shall be managed by a committee to be known as the Field Trial Committee which should consist of at least five members.

The Field Trial Committee shall appoint a Marshal to carry out their orders.

RULE 2. The Field Trial Committee shall have the power subject to the By-laws, Rules and Regulations of the American Kennel Club, to interpret the Running Rules of the Field Trial-giving Club and to decide all matters not provided for therein; to refuse any entry they think proper to exclude and to take action on any written objection to an entry; to suspend or debar from handling or entering hounds in any field trial of the Club any person who uses abusive language to the Judges or Officers of the Club, or who has been found to the satisfaction of the Field Trial Committee, to have conducted himself improperly in any measure in connection with dogs or field trials, or who is a defaulter for either stakes or forfeits in connection with field trials, or for money due under an arrangement for division of winnings, or for penalties for infraction of rules, or for any payment required by a decision of the Club.

### Entries

RULE 3, SECTION 1. All entries must be made on an entry blank furnished by the Field Trial-giving Club and must show all particulars as set forth in Chapter 9 of Section 2 of American Kennel Club Rules, and also the colors or distinguishing marks and the stake in which it is entered. Any hound proven not to correspond with its entry blank shall be disqualified and all winnings and entry money shall be forfeited and should the act of fraudulent entry be proven, the owner or handler, or both, may be debarred from future competition in events held by any Club.

SECTION 2. All hounds must be registered or eligible to registration in the American Kennel Club Stud Book.

SECTION 3. The entrance fee must accompany every nomination.

SECTION 4. Castrated dogs or spayed bitches shall be debarred from competition in the events held by the Field Trial-giving Club, and any such dog or bitch, proven to have been so run, with the knowledge of the owner or handler, or both, may be debarred from future competition in events held by the Club.

SECTION 5. Hounds affected with any contagious disease, shall not be permitted on the grounds or kennels where the trials are being run.

SECTION 6. In stakes, mixed as to sex, if in the opinion of the Field Trial Committee a bitch is in season, she shall be refused permission to run.

SECTION 7. Any objection to any entry must be made in writing, to the Secretary, preferably before the beginning of the stakes.

### Drawing and Order of Running

RULE 4, SECTION 1. Before the drawing of each stake, the hounds entered in that stake, unless officially measured by the American Kennel Club, shall be measured by the Field Trial Committee or by a committee appointed by the Field Trial Committee. But, in no case shall the Committee consist of less than three persons. A measure made entirely of metal and meeting the requirements of the American Kennel Club must be used for the measuring.

Photo by W. L. R. Drake.
Hot, tired, tongue hanging out—but happy.

Any hound eighteen months of age or over that has been measured at a field trial of the Field Trial-giving Club shall be recorded as of that measurement for all future trials of the Club. Nothing herein contained, however, shall prevent a hound's measurement being protested in accordance with the provisions of American Kennel Club Rules.

SECTION 2. The hounds entered in each stake shall be drawn by lot and braced accordingly for the first series running. Should two hounds owned by the same person be drawn in the same brace, the last hound so drawn will change places with the next hound drawn which is not so owned. This change will be made with a hound drawn later if possible, but may be made with a

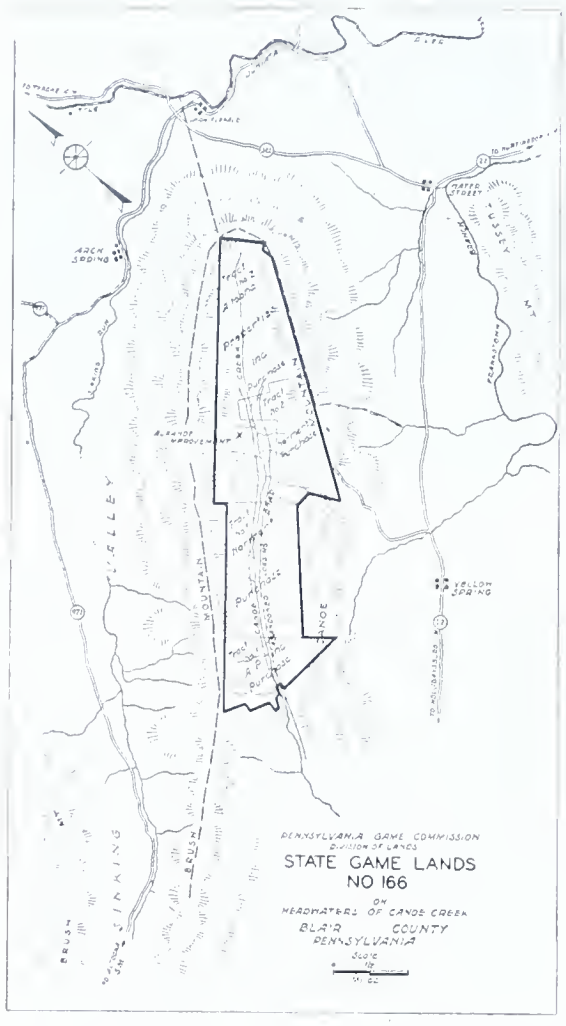
*(Continued on page 19)*

Photo by W. L. R. Drake.
G. I. Purnell, of Bellefonte, with three of his favorite beagles.

# New Lands Acquired

*Here is a story on land acquisition that goes back 20 years*

*By W. Gard Conklin*




AFTER many years of patient waiting, an objective of the sportsmen of Altoona and vicinity has been realized. The Game Commission has finally acquired 4,290.8 acres in what is generally known as the "Beaver Dam" section of Catharine Township, Blair County. The area is designated State Game Lands No. 166. It is situated on the headwaters of Canoe Creek, a tributary of the Frankstown Branch of the Juniata River, and was formerly owned by the McKelvey Brothers, lumbermen of Hollidaysburg. Although somewhat inaccessible, there being no driveable road within the area, it has long been a favorite hunting and fishing site for sportsmen in that section of the State.

The story of this acquisition goes back some twenty years when Blair County's conservation-minded sportsmen, headed by the never to be forgotten and affectionately known "Johnny" Winters, brought to the attention of the Commission the possibility of purchasing the McKelvey holdings of approximately 4,300 acres. At that time the writer accepted an invitation of Mr. Winters, as fine a sportsman as anyone would care to meet, to visit the area with him and other interested sportsmen. He has long since passed to his great reward, but his memory lingers on with all who had the pleasure and benefit of his acquaintance. His tireless energy and innumerable activities to conserve forests and wildlife have borne fruit in many ways, and his good work continues.

The inspection trip took place on a cold Sunday in early spring, and was made easy through the courtesy of the McKelvey Bros. who kindly supplied a comfortable (if one thought so) logging train to transport the group of enthusiastic sportsmen through the major portion of the tract. The "dinkey" engine was kept well under control, exceeded no speed limits, and was occasionally brought to a complete stop to permit the group to "de-train" and make leisurely inspections of game food and cover conditions. Lacking a diner on the McKelvey train, the "inspectors" felt pangs of hunger long before their return to Altoona where, however, steak dinners became the order of the day.

One of the selling points used by "Johnny" Winters and his friends to gain the interest of the Commission, was the unusually fine fishing stream, Canoe Creek, which flows through the tract for a distance of about six miles. Its never failing supply of good pure water, coming from an extraordinarily large number of small tributaries throughout its length, was quite impressive. Because of this abundant supply of uncontaminated water, the McKelvey Brothers and probably many other persons as well, thought it would sooner or later be needed by the City of Altoona for domestic purposes. The McKelveys evidently were of the opinion that the City wanted the water and thought they should receive approximately $250,000 for the tract of 4300 acres. However, inquiries made of the City officials disclosed that they were not interested, particularly as it would have required piping the water either across or through Brush Mountain, the cost of which would have been excessive.

The McKelveys had accumulated the approximately 4,300 acres by purchasing a number of contiguous tracts from various owners, the first purchase having been made in 1916. After cutting and marketing the timber, they were unfortunate in being forced into a receivership in 1930, and were later adjudged bankrupts. By various transactions, part of the acreage came into possession of Robert T. Norment of New York City, and the remainder into the Altoona Properties, Inc., likewise of New York.

The Game Commission in 1938 agreed to purchase Mr. Norment's portion which its survey disclosed contained 1,771.5 acres. Title became vested in the Commonwealth, for use of the Commission, by deed of September 28, 1939. During the latter part of 1941 the Altoona Properties, Inc. offered to sell their portion and the Commission at its meeting January 8, 1942, accepted the offer. Survey of the boundary lines indicated that the area contained 2,519.3 acres, for which title was conveyed to the Commonwealth October 20, 1942.

It should be of great interest to sportsmen to know that their Game Commission paid only $12,163.80 for the identical acreage former owners held at $250,000. However, the former owners did not make a formal offer of sale to the Commission, knowing full well it could not legally have paid at that time in excess of $10.00 per acre. The Commission finally paid a little less than $3.00 per acre for land for which the McKelveys thought the City of Altoona might pay $60.00 per acre. This purchase is an outstanding example of the Commission's policy of not being stampeded into buying State Game Lands at prices higher than it considers it is justified in paying for lands to be used for game management purposes.

This splendid block of State Game Lands can be enlarged to more than double its present size if and when adjacent landowners are willing to sell their tracts at reasonable prices. Brush Mountain to the northwest and Lock Mountain to the southeast presents good possibilities.

FREE FREE

## Mechanicsburg Sportsmen's Protective Association

American Legion Home, York and Main Streets

**V**ery
**I**nteresting *Meeting*
**C**oming up---*8-00 P. M. Sharp*
**T***hursday, April 23, 1942*
**O**ur Annual Sportsmen's Rally
**R***efreshments, Movies, Speakers*
**Y**our Sportsmen friends are invited

P. S.---If you've paid 1942 dues and have'nt received Membership Card, advise at once so errors can be corrected promptly

# Ichabod Crane

*By Bob Munroe*

●

**In Miami Daily News**

*When Bob Munroe, "Fishing Guide" of the Miami Daily News, penned his daily column for Friday, June 12, he was "not aware that it was anything extraordinary," but it hit a responsive chord with sportsmen, bird-lovers, conservationists. In fact, Bob says he may have to set up an independent bureau to handle correspondence relative to Ichabod. Seriously, it is the sort of indirect conservation sermon that appeals to the rugged outdoorsman as much as to the member of a garden club.*

THIS little essay is addressed to sportsmen. I don't mean the fellow who thinks harpooning tarpon adds lustre to the sport of fishing, or the one who catches an amberjack, harness it, then keeps it swimming around the stern of his boat until every fish in the school has been boated. I mean men of conscience.

Ten days ago when Earl Shugars, Associated Press photographer, and I were down at Shark river we made the acquaintance of an interesting bird, a great white heron named, appropriately enough, Ichabod. Crane, I suppose the last name would have to be, although it never occurred to us to ask him.

Ichabod had a pitiful story to tell. It seems he came to spend the winter in the Cape Sable region, the last American frontier sanctuary for him and his fellows—although at one time vast areas of the everglades and tidewater mangrove marshes were white at dawn and dusk with their flights.

Naturally adapted to life in this latitude—at least as long as amateur marksmen and commercial hunters permit, and enjoying the gallant though inadequate protection of Audubon society agents, Ichabod had been getting along fine. It was great fun to wake up at crack of dawn, ruffle his feathers luxuriously, and with his mate flap off to Sable creek, Christian point or Seven Palm lake to greet the rising sun and pick up a bit of breakfast.

Boy, those fiddler crabs along the beaches are the stuff when you're hungry! Mutton minnows, water bugs, frogs and occasional small snakes are okay, too. In short, there was no lack of food in tempting variety around the Monroe county herony—"where every prospect pleases and only man is vile."

It was this quotation—he didn't know who originally said it, and I'm sure I don't—that brought poor old Ichabod to the point of his story:

"So I'm just a country bird trying to get along, but doing all right down here, when—bingo! down comes one of these big-shot sportsmen.

"He was a fisherman, he said, and all of us thought so, too, because he stuck pretty well to his plug-casting for a couple of days. Birds haven't anything against anglers. By and large they tend to their fishing and let us tend to ours. There's something to be said for that, you'll admit. We don't go poking around in men's affairs—except that cousin of mine, the stork, who apparently doesn't know any better. (Any grief he can bring mankind is so much velvet as far as I'm concerned, now!)

"I was within easy walking distance of the Shark River fishing camp dock on Coot bay when this fellow—a doctor from Birmingham, Ala., I heard the guides say—came in from his last day of fishing. He had a beautiful catch. You couldn't imagine what else he thought he needed to make his trip a success. I soon found out, though.

"Well, as I say, I was just hanging around the camp, hoping for a handout of fish entrails or some little tidbit. That's where I made my mistake. I'm white and pretty good-sized, and no doubt I was the only living thing in sight; so he shot me—broke my left wing, leaving me crippled for life.

"Now my mate's left me. I can't fly any more, and have to subsist on fish leavings mostly, and I hope that damn' sportsman is satisfied . . . Pose for a picture? Sure, what have I got to lose?"

# SKULL MYSTERY EXPLAINED

In the August issue of GAME NEWS we carried an interesting story by Game Protector John Dittmar entitled "Strange Burial Grounds" in which he mentioned a farmer's having found 49 small animal skulls in the hollow of a tree.

The skulls were subsequently brought to the office by Mr. Dittmar where they were identified immediately by our Research Division as bird skulls of some kind. Not to question that identification for a moment, but to further substantiate it for the benefit of others who thought they were mammal skulls, the writer sent them on to his friend J. Kenneth Doutt, Curator of Mammalogy, Carnegie Museum, who wrote later as follows:

I wanted to show these skulls to Mr. Todd, (W. E. Clyde Todd, Curator of ornithology) so I held them until he returned from Hudson Bay. He was not willing to commit himself immediately upon their identity, but after (some time and after) getting some additional material for comparison, he decided that they were *chicken skulls*. The correctness of his determination is attested to by the fact that several chicken feathers still remain attached to the skulls. When a man chops off the head of a chicken with an axe he usually does so somewhere along the neck, leaving several of the cervical vertebrae between the skull and the cut. Thus, when the flesh has rotted and the vertebrae have dropped off there is little evidence to indicate how the chicken met its death. In several instances here, however, the aim of the ax-man apparently was not good, because there are sharp ax cuts on some of the skulls. A careful examination of the skulls also reveals numerous tooth marks, and a considerable amount of hair.

"The evidence from the tooth marks is not very conclusive, but the hair is practically all that of the skunk. The mystery, as I see it, can be explained something like this: someone in the neighborhood had been killing chickens. The skunk gathered them up and carried them back to his den in the fallen tree. I don't believe that any of the skulls had been in the tree more than a few months, and yet I am inclined to think that they represent an accumulation over some little time, and were not all stored there at once. It would be interesting to find out if there is a farmhouse within a few miles of where these skulls were found, and if so, if the inhabitants had seen evidence of skunks visiting the place a few months previous to the time these skulls were found"

—The Editor

## We're Equal to Six Guards

*(Continued from page 3)*

**Young men and boys, when carefully trained to handle a gun, make excellent marksmen, safe hunters, and potential defenders of the Country in times of emergency.**

Ohio:
Paul Q. Quay,
National Acme Co.,
E. 131st St. & Coit Road, Cleveland, Ohio

T. H. Carruthers, 3d,
Glendale, Ohio

Oklahoma:
John B. Charles,
121 W. 8th St., Tulsa, Okla.

Pacific Coast:
Ernest E. Ferguson,
720 S. Los Angeles St., Los Angeles, Cal.

Pennsylvania:
W. Newbold Ely,
Ambler, Penna.

South Atlantic States:
Miss F. Julia Shearer,
Locust Dale, Va.

Texas:
Lewis G. Spence,
7906 Brookhollow Drive, Dallas, Texas

Wisconsin:
Mrs. Marie A. Stone,
3474 N. Lake Drive, Milwaukee, Wisc.

Five things are needed by Dogs For Defense:

1—Money
2—Reception Centers
3—Dogs
4—Raising Puppies
5—Training of Dogs

See what YOU can do about one or more of the above—NOW!

---

In response to our request for records of big game animals set forth on page 32 of the December issue we have received the following from Russell A. Keck, Bradford, Pa.

Length on outside curve A—25 inches
Circumference of main beam—5 inches
Circumference of burr at base of beam—6 inches
Greatest spread—19 inches
Number of points on each horn: Right, 5 inches; Left, 6 inches
Dressed weight—227 pounds
Color—Steel
Date killed—1939
By whom killed—Russell A. Keck
Address—Bradford, Pa.

# Pennsylvania's 1941 Game Harvest

*(Continued from page 5)*

the law overlooked the filing of their reports. It was hoped that the educational program could be discontinued after several years, although it has been necessary to continue it so that an equal opportunity might be given to the rather large "new crop" of hunters who join the fraternity every year.

That the educational approach has produced satisfactory results is attested to by the five-year comparative statement below:

| | 1937 | 1938 | 1939 | 1940 | 1941 |
|---|---|---|---|---|---|
| Total licenses issued | 606,618 | 661,730 | 667,901 | 679,168 | 687,134 |
| Number of Game-Kill Reports filed Voluntarily | 418,566 (69%) | 527,075 (80%) | 589,734 (88.3%) | 609,778 (89.7%) | 580,974 (84½%) |
| Number of Special Reminder Notices Mailed | 189,064 (31%) | 132,454 (20%) | 68,780 (10.3%) | 70,966 (10.3%) | 102,827 (15%) |
| Per Cent of Game-Kill Reports Included in Final Tabulation | 93% | 98% | 98½% | 98½% | 97½% |

While the sportsmen are to be commended for cooperating so splendidly in this program, the Commission is looking forward to the day when at least ninety-five (95%) per cent of the hunters will file their reports voluntarily without the necessity of mailing them special reminder notices. *An accomplishment of this kind will make it possible to publish the final report at a much earlier date, and also effect an operating economy.*

### Plan to be Continued

The results thus far derived have been so beneficial, and the experience so varied and far reaching, that our Commission believes it desirable to continue the plan.

The Commission is mindful of suggestions made for arriving at the annual kill by taking a short cut to save money. The most popular method suggested is: "Why not tabulate only a few of the reports and use the base so derived in arriving at the composite compilation to cover the total number of hunters."

If anyone of the short cuts were adopted, and the present plan discontinued, the sportsmen would not only be denied factual information on the annual game crop, but in the absence of a complete check-up in the manner now required the number of reports submitted would dwindle rapidly, and we would soon be back where we were in 1936, when only 80,000 were received on prepaid mailing cards. To go back to that era would encourage the same kind of widespread cheating in the issuance of licenses that prevailed then, and any savings in tabulating costs—perhaps more—would have to be expended in an attempt to correct the attending evils. Furthermore, a reduction in revenue from the sale of non-resident licenses could again be expected.

### File Your 1941 Report

On the assumption that the January 1943 issue of the GAME NEWS will be distributed well in advance of the deadline for filing the 1942 Game-Kill Reports, namely, January 15, 1943, a special appeal is made to all hunters who read this article that they not only file their own reports, but encourage their friends to do likewise. Here's a suggestion to Dads. Perhaps this year for the first time you enjoyed that long-awaited thrill of having your son join you on his first hunting trip. Set a good example by filing your own report and impress upon your lad the importance of doing the same. By training the new recruits in this way it will reduce the number of special reminder notices which must be mailed to delinquent hunters. *Why should a sportsman be careless in filing his report, since it pays big dividends and requires only a few minutes of his time and a one-cent postage stamp.* Please see to it that yours gets into the mail before January 16.

NUMBER OF DAYS HUNTED—1941

| *No. of Hunters Reporting* | *Percent* | *Kind of Game Hunted* | *Number Separate Days Hunted* | *Average Number of Days per Hunter* |
|---|---|---|---|---|
| 16,824 | 4.6 | Big Game Only | 66,312 | 3.9 |
| 171,577 | 46.9 | Small Game Only | 942,187 | 5.5 |
| 177,161 | 48.5 | Both Small and Big Game * | 1,713,712 | 9.7 |
| 365,562 | 100% | | 2,722,211 | 7.4 |

(* Small Game—1,129,473 days—6.4)
(* Big Game—584,239 days—3.3)

1940

| *No. of Hunters Reporting* | *Percent* | *Kind of Game Hunted* | *Number Separate Days Hunted* | *Average Number of Days per Hunter* |
|---|---|---|---|---|
| 29,006 | 7.6 | Big Game Only | 86,343 | 2.9 |
| 118,449 | 31.0 | Small Game Only | 667,379 | 5.6 |
| 234,714 | 61.4 | Both Small and Big Game * | 2,290,721 | 9.7 |
| 382,169 | 100% | | 3,044,443 | 8.0 |

(* Small Game—1,537,172 days—6.5)
(* Big Game—753,549 days—3.2)

**Pennsylvania's Recorded Game-Kill for Five-Year Period (1937-41)**
**Compared With**
**Average Annual Kill for Previous Five-Year Period (1932-36)**
**(Based on Complete Tabulations of Hunters' Reports, 1937-1941)**

| Species | Season of 1937[1] | Season of 1938[2] | Season of 1939[3] | Season of 1940[3] | Season of 1941[4] | Average Annual Kill For Period (A) | Average Annual Kill Five Years (1932-1936) |
|---|---|---|---|---|---|---|---|
| Deer, Legal Antlered | 39,347 | ..... | 49,106 | 40,995 | 19,271 | 96,108 | 29,979 |
| Deer, Legal Antlerless | ..... | 171,662 | 14,581 | 145,580 | (Closed) | | |
| Total Deer | 39,347 | 171,662 | 63,687 | 186,575 | 19,271 | | |
| Bears | 537 | 384 | 535 | 524 | 593 | 515 | 390 |
| Rabbits | 3,074,820 | 4,263,759 | 3,804,701 | 3,266,537 | 3,575,104 | 3,596,984 | 2,130,454 |
| Hares, (Snowshoes) | 2,420 | 2,120 | (Closed) | (Closed) | (Closed) | 2,270 | 17,421 |
| Squirrels | 1,056,408 | 1,106,914 | 945,471 | 1,044,784 | 936,213 | 1,017,958 | 833,235 |
| Raccoons | 29,842 | 36,046 | 38,452 | 40,802 | 44,145 | 37,857 | 33,088 |
| Wild Turkeys | 6,619 | 6,766 | 5,191 | 5,218 | 3,911 | 5,541 | 3,675 |
| Ruffed Grouse | 177,683 | 224,479 | 237,245 | 221,474 | 187,990 | 209,774 | 144,353 |
| Ringneck Pheasants | 371,526 | 517,280 | 471,539 | 459,071 | 537,990 | 471,481 | 267,358 |
| Quail | 105,795 | 109,891 | 111,674 | 74,808 | 70,929 | 94,619 | 148,387 |
| Woodcocks | 57,244 | 50,085 | 40,816 | 29,087 | 31,328 | 41,712 | 30,081 |
| Wilson's Snipe, Gallinules and Rails | 12,657 | 8,717 | 6,294 | 5,091 | 4,162 | 7,384 | 12,892 |
| Grackles (Blackbirds) | 78,543 | 78,613 | 47,449 | 43,204 | 46,566 | 58,875 | 106,129 |
| Wild Waterfowl | 16,758 | 21,329 | 38,474 | 53,060 | 55,836 | 37,091 | 24,791 |
| Woodchucks | (No Record) | 145,528 | 178,691 | 190,735 | 196,729 | 177,921 | (No Record) |
| Total Number of Pieces | 5,030,199 | 6,743,573 | 5,990,219 | 5,619,970 | 5,710,767 | 5,818,946 | 3,778,671 |
| Reduced to Tons Equals | 6,402 | 12,762 | 8,897 | 13,277 | 6,645 | 9,597 | 4,850 |

[1] Based upon reports from 93% of the licensed hunters.
[2] Based upon reports from 98% of the licensed hunters.
[3] Based upon reports from 98½% of the licensed hunters.
[4] Based upon reports from 97½% of the licensed hunters.
(A) Where certain species were not legal during the entire period the average was obtained by using the number of years such species were taken.

# Rules for Beagle Trials

*(Continued from page 15)*

hound drawn earlier if necessary. The running together of two such hounds may be permitted in the first series when a separation is impossible, but in no other case. When a brace is called the Judges shall order the handlers to release their hounds.

SECTION 3. A brace mate for the bye hound in any series shall be selected by the Judges and shall be under judgment when so running.

SECTION 4. In stakes for packs, the packs shall be drawn by lot, and shall be run separately.

**Instructions to Judges**

RULE 5. After the running of the first series has been completed, the Judges shall announce which hounds they wish to see run in the second series and may have them braced as desired. After the first series, Judges may exercise their own discretion as to running any or all braces and may brace them in any order or manner they think best, until they are satisfied as to the respective merits of the hounds. In no case shall any hound be run under judgment without a competing brace mate.

RULE 6. The Judges shall appoint a spokesman from their number, and all orders or information upon any point concerning the heat shall be given by him in a clear and impartial manner, so that each handler may have full benefit thereof.

RULE 7. Should there arise, at any time, during the running of a heat, questions bearing upon the actual running of the hounds and not provided for in these rules, the Judges are instructed to use their judgment, and discretion, and so decide the matter as to give each hound an equal opportunity.

RULE 8. Each heat shall be conducted in the manner best calculated to give the competitors an opportunity to display the qualities under judgment and each entry shall be given an equal opportunity on game.

RULE 9. The Judges shall give each brace

*(Continued on page 20)*

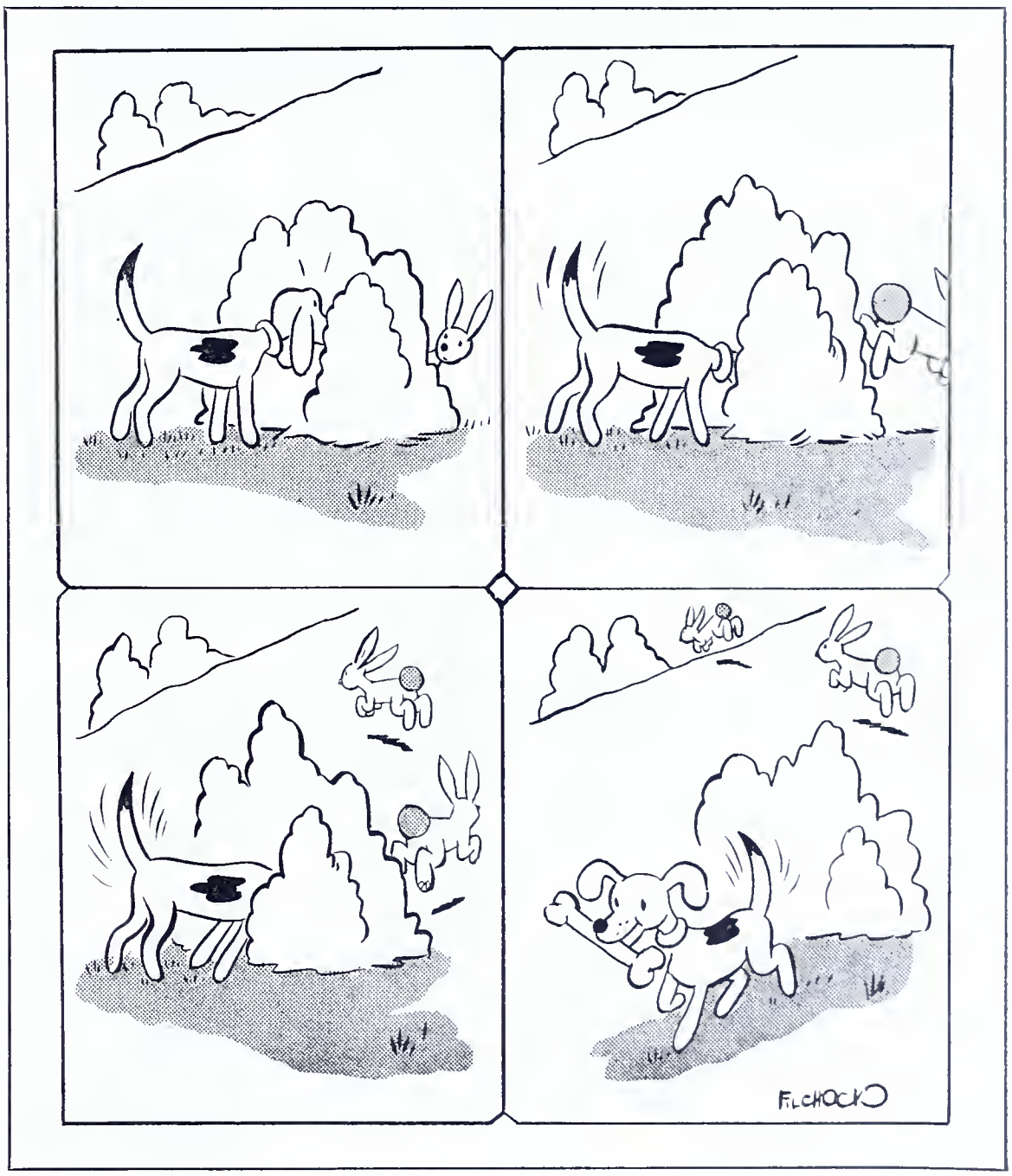


Photo Philadelphia Record.

Mrs. Floyd Irwin, Upper Northwood near Oxford Circle, Philadelphia, and her daughter, Beth, 4, get to work on the shambles a frightened deer made of the lower floor of their home recently. He plunged through the front window, shattering the glass. Tables, chairs, the radio and vases went flying as he set sail for the kitchen. He skidded on a rug, slid into the kitchen. Upstairs, Irwin sat upright in bed. "What is it, an air raid?" His wife, Elizabeth, leaped instinctively from the bed and dashed to the baby's room. Beth, 4, was sitting up wide-eyed. "I thought she had fallen out of bed," said Mrs. Irwin. By the time Irwin got down stairs, the deer was just leaping out the window.

in the first series at least thirty (30) minutes, except when in twenty (20) minutes the brace shall have been seen on game continuously or on two rabbits to the satisfaction of the judges, and shall order up the hounds as soon thereafter as they may determine, but if a hound persistently disobeys its handler or is lost, the Judges may order him up at the end of thirty (30) minutes whether he has been seen on game or not. Hounds may be ordered up upon the joint requests of the handlers at any time.

RULE 10. Should a brace become split, the hounds going away on different rabbits, the Judges shall order both hounds up and the brace shall be put on game different from that before run by either hound.

RULE 11, SECTION 1. Judges are to consider that the Beagle is primarily a hunting hound and that his object is to first find game and second to drive it in an energetic and decisive manner and show an animated desire to overtake it.

SECTION 2. Trailing game other than announced, such as pheasants or game animals, shall not be considered a demerit.

SECTION 3. Opening up in going to a bracemate who shows every evidence of being on game, shall not be a demerit.

SECTION 4. The number of times a hound finds game shall not necessarily give him the preference, but the quality of the performance shall be given first consideration. Ability and desire to hunt are of first importance. These points are evidenced by intelligence, the method of working ground and the ambition and industry displayed whether game is found or not.

SECTION 5. When a hound gives signs of being on game, the Judges shall allow him opportunity to prove whether or not he is on true trail. Judges shall not penalize or fault a hound without ample proof. If reasonable doubt exists, the hound shall be given the benefit of the doubt.

SECTION 6. If competition is close, the Judges shall give greater credit to the hound that is obedient to the commands of his handler. A hound will be expected to maintain an efficient range throughout a heat and to show hunting sense in his work. Hunting sense is shown by the desire to hunt for game, the selection of likely places to hunt in, the method of hunting the places, the industry in staying out at work, and the skill in handling and trailing the game after it is found.

SECTION 7. In trailing and driving when the hounds overrun, if one hound shows either by voice or action, it has the line, and the other hound jumps in front on the line especially if it interferes with the work of the hound on the line, such hound shall receive no credit for any work until after it has picked up a check without aid from its bracemate. At a check, they should work industriously, close to where the loss occurred, before going further afield to look for the line.

RULE 12. Undue credit shall not be given for speed and flashy driving if the trail is not clearly followed. Accuracy in trailing, voice, endurance, starting ability, style and obedience, shall be the principal points of merit, but nothing in the foregoing shall excuse a hound for pottering, swinging, skirting, babbling, leaving checks, racing, running in hit or miss style, back tracking, running mute, running a ghost trail, all of which shall be considered demerits.

RULE 13. When a rabbit pursued by a brace runs into the gallery, or is frightened by the gallery, and the hounds show a disposition to lose, the Judges may at their discretion give the brace a new rabbit.

RULE 14. The Judges may announce the winner at any time after the second series; provided the first and second prize winners have run together.

RULE 15. In all stakes the Judges shall award places as follows: 1st, 2nd, 3rd, and 4th. After these places have been awarded, the Judges shall designate the next best qualified hound as "Reserve." Reserve is not a place, but is simply the designation of a hound which shall automatically move up, into 4th place in case one of the hounds placed above him is later officially disqualified by proper authority.

RULE 16. Hounds running in all series shall be scored by percentages, and hounds for all series may come from same or different braces. Percentages in all series must be considered in awarding places.

RULE 17. In pack stakes, team work rather than individual work shall count. The hounds in the pack should be expected to hunt in the same manner as those in the individual stakes within easy distance of one another, to hark in quickly and to drive at an even speed well packed. If all the work is done by one or two, or a few of the hounds, and the others only run along it is not a good pack. A pack should be demerited if one or more of the hounds refuse to hark, skirt, show too great a desire to run individually, or be out during the chase. If a stake calls for 8 couples there should be 16 hounds trying to stay or get in and if one or more are absent it is not an 8 couple pack. The master or huntsman may lift his hounds as often as circumstances require, the chief objective being to overtake the quarry.

RULE 18, SECTION 1. The Judges shall call to order a handler for making any unnecessary noise, or for any disorderly conduct calculated to in any way interfere with the opponent's hound. It shall be the duty of the Judges to call the offending party to order and see that this rule is at all times strictly enforced.

SECTION 2. Handlers, while their hounds are down shall go together and keep within sight of the Judges and each other when possible.

SECTION 3. A handler may speak or whistle to his hound or work him in any way he may deem proper, if not contrary to these rules, but he shall not make any unnecessary noise or interfere with an opponent's hound in any way.

SECTION 4. Owners and handlers are allowed the privilege of asking the Judges for information or for an explanation that has a direct bearing upon any point at issue.

SECTION 5. Handlers must keep themselves informed of the order of running and must be ready within hailing distance when their hounds are called. Any hound absent more than twenty minutes when called may be debarred at the discretion of the Field Trial Committee.

SECTION 6. When hounds have been laid on a line together or have harked in to one another, the duties of a handler shall cease until further instructed by the Judges. At

a check the handler shall keep back of the Judges and hounds. Judges shall enforce this rule at all times.

### General Rules

RULE 19. When game is raised, the gallery shall stand fast. When additional game is required, the search shall start at the point where the last game was found.

RULE 20. No hound can be withdrawn during the running of a heat, except with the consent of the Judges. Should a hound be withdrawn, without such consent, the owner or handler may be debarred from further trials of the Field Trial-giving Club and all prizes won by such owner or handler in the stake may be forfeited to the Club. If any hound be withdrawn with the consent of the Judges from a stake on the field, or at any time during the holding of the trial, its owner or deputy having authority shall notify the Secretary or one of the Field Trial Committee. If the hound belongs to either or any of those officials, the notice must be given to one of the others.

RULE 21. No person shall make any remarks, or give any information whatever, calculated to affect the action of the handlers or result of the heat. Any person so offending may be expelled from the grounds, and points of merit shall not be allowed any hound whose handler acts upon information imparted by such person, or uses any unfair means whatever. A protest at this point must be made to the Judges before the close of the heat, and their decision shall be final.

RULE 22, SECTION 1. An owner, his handler, or his deputy may hunt a hound, but it must be one or the other; and when hounds are down, an owner must not interfere with his hound if he has deputized another person to handle and hunt him.

SECTION 2. In the pack stakes the Huntsman may be assisted by Whippers-in.

RULE 23. All Judges prior to assuming their duties shall familiarize themselves with these rules and make their findings in accordance therewith.

Who is this young man with the fine trophy? He looks mighty proud of it.

# Modern Robin Hoods

*(Continued from page 9)*

'bird points' were used for game as big as deer and bear and elk because they could penetrate deep."

I had scarcely a chance to turn over in my sleeping bag before someone shook me. It was four o'clock and one of my tent mates was already pulling on his boots. I slipped into my cothes and peeped out of the tent flap. The stars were white beyond the hemlock boughs.

After breakfast we were assigned to our hunt compartments. My station was a long cove above Three Forks, almost two miles down the Noontootly from camp.

"That's a good place for a deer," the ranger said. Then he leaned close and whispered, "Hunt like an Indian."

When daylight came the roar of the Noontootly was like faint thunder in the valley. I sat down on the shell of a poplar log which might have sprawled there for a hundred years. The cove below was a perfect range for deer. This year the white oak mast was heavy and acorns were a favorite food. A well used game trail crawled along the cove floor not fifty feet away and went toward Springer Mountain on the skyline above.

Yellow sunshine marched down the slope and spread into the canopy of leaves. While the autumn colors still were bright, I had my eyes upon the play of pigments overhead when the hard earth resounded to the ring of hooves. I pulled my bow into position for quick action as a doe and fawn came up the trail, stepping daintily among the lights and shadows. I relaxed again and the pounding of my heart slowed down.

Waiting grew monotonous. I wanted to desert the log and stalk along the trail, but the ranger's last words still rang in my ears: "Hunt like an Indian." An Indian hunted with the patience of the wilderness itself.

The forest life went on as though it were unaware of my presence. A tiny winter wren hopped upon my log, and a flock of warblers fled by. The sun swung overhead and pointed down. In the afternoon a flock of fourteen turkeys wandered across the cove, scratching in the leaves and making little clucking noises in their throats. I could have pinned one of the big bronze birds to the ground with an arrow, but the season on turkeys had not yet opened.

At dusk I left my log and walked back down the trail toward camp. My luck had been the luck of all the other Robin Hoods. Thompson had seen a buck that wheeled and thundered up the mountain out of range, and most of the hunters had wandered up and down their territory all day without seeing a deer. Ranger Woody heard the news in silence, though a faint smile played at the corners of his eyes.

Dick Barbour saw the smile. "I'll get a buck or break my neck trying," he swore.

The second day was a duplicate of the first, except that I did not sit still. Before the middle of the morning I left my log, and spent the day ranging up and down the mountain. Once I jumped a rabbit and later on a ruffed grouse boomed up and sailed off across the slope. Coming in sight of camp at dusk, I wondered how I would lift my feet to walk the remaining short distance to the fire.

"There were no deer in my territory today," I said to Arthur Woody. "I walked over every foot of it."

"You wouldn't have seen 'em if they'd been there," he said. "Buck can hear you an' smell you before you get closer 'n half a mile. You'll never kill one walkin', and with that contraption." He pointed to my bow 'n ärrer."

The group of archers were the most determined men I have ever seen. They took an oath to make Arthur Woody eat that deer nose. Day after day they left camp before the east showed its first light, and night after night they dragged back again, exhausted. On the fourth day Dick Hughes fell and cut his knee. His four companions left with him for the doctor and Indiana. Almost every day some of the archers sighted bucks, but they were usually too far beyond the flight of an arrow and traveling too fast. Every man hunted hard. The deer were there. We had seen them. But no one brought in venison.

"What kind of curse have you put on this place?" Dick Barbour asked Arthur Woody.

"I ain't cussed at all," the ranger said. "It's jest that you 'uns don't know how to hunt."

The afternoon of the fifth day came, and still no one brought a deer into camp.

"It just goes to prove," said Thompson, as we stood around the campfire, "that a man can have as much sport without making a kill."

"Bringing home game is the least important part of any hunt," someone said, and several of the hunters voiced approval of the words.

"We'll take your wager again next year," Thompson said to Ranger Woody.

"We'll talk about that next year," the ranger replied.

I walked with Arthur back up the trail to the ranger station. "You were cocksure we wouldn't get a deer," I said. "Why?"

"I'll be cocksure the next time you see me," the ranger grinned. "It takes more than good shootin' with a bow 'n ärrer to git a buck."

"What more?" I asked.

"Good woodsmanship, for one thing," he said. "The Indians were good hunters because they had to be. They laid over a trail 'til a buck come along, if'n it took a day or week. Then they plugged him with a ärrer at close range. Modern folks can't set still. They got to be a-movin' all th' time. You can't find th' deer a-movin'. You got to elt th' deer find you. And Plunkin' a ärrer into a target settin' still at a hundred feet ain't like plunkin' it into a buck that's a-runnin hell-for-election."

"You took a chance on having to eat a deer nose by telling me how to hunt," I said. "Remember?"

"Shore," the ranger said, "but I was safe. I knowed you wouldn't take my advice. And I knowed you couldn't hit one of them bucks nohow, even if he was a-straddle you. I done seen you shoot."

# Midnight Crow Shoot

*(Continued from page 13)*

on the largest. Sneaking up to within about twenty yards of them we stopped in some briars (I felt them) and fired four shots. The sky literally rained crows. The surviving ones quickly took wing and disappeared into the night.

Upon gathering the fallen ones and chasing several cripples around a field, the kill totaled twenty-eight. Up to this time I have never witnessed a greater kill with only four shots. Even twelve shots fired by three hunters at a flock just getting off the ground failed to surpass this record. However, one particular night Dick killed eleven with two well aimed shots.

Since my first crow hunt I have learned many things including the fact that Jim Crow, even in the confusing darkness, retains much of his daytime trickery and elusiveness.

Generally I found the roosts were easy to locate by driving around an hour before dark and following any small or large flight of crows. After finding the roost, never leave it until dark. It is always a good practice to use field glasses and make a survey of the woods and surrounding territory to facilitate approaching them. Wear old clothes and hunting boots. Never shine a flashlight in the direction of a crow roost at night! This is like waving your arm from a blind at ducks. Pick out dark nights for your hunt. Six or eight hunters can rid your locality of many black marauders in a single night. Always wait at least ten minutes after firing the first shots for the crows to return. When the time is up and they haven't returned you will have to locate them by the noise.

Some nights, friends and myself were compelled to walk several miles across fields, through woods, over streams, and fences to keep shooting at the birds as they moved from one place to another. This was especially common on moonlight nights. In many cases they will fly out of the original roost and land in nearby fields. Usually after discovering they had landed in a field we would

Picking up the "evidence."

walk as near them as possible and then run into the flock before they gained altitude, shooting as we ran. This procedure usually produced a large number unless one started to shoot too soon.

Dark cloudy nights are excellent for crow shooting because a man's eyesight is unquestionably the sharper of the two, therefore, the hunter is able to get quite close before the crows spot him. Moonlight nights seem to give the crows a vision which is almost if not equal to that of a man. On such nights the light quickly exposes a moving form to the ever watchful sentinels and the flock is up and away before shooting is possible.

One bright moonlight night last year when the ground was snow-covered, we experimented by using white sheets and had a successful hunt. After raising the flock from the woods and killing a few they refused to seek the woods as a shelter and lit in the fields which were lighted bright as day. We slipped the sheets on over our clothes and killed quite a few by following them through the fields. Since then I have often marveled that we weren't mistaken for ghosts by a farmer and filled with buckshot.

A good night's shooting can be had by remaining in the woods where you originally shot at the crows until they return in five or ten minutes. It is to your advantage, though, if three or four hunters accompany you and station themselves throughout the woods. Often they split up in small groups, choosing different spots to alight in the trees.

I remember one particular night two friends and myself started hunting at ten o'clock and kept shooting at the same flock until three the next morning, firing over a hundred shells. After the first shots the crows cleared out of the woods, and we stationed ourselves under different trees. About five minutes later I heard what sounded like a low whistling breeze and, looking above, the air was black with flying birds. Soon a few settled into the trees directly above me, followed shortly by the main flock, their wings making clacking sounds as they brushed limbs while alighting. A shot soon sent them into the air and a short wait often brought that low whistling breeze to my ears again and the trees around me were quickly filled with a few hundred more. Often it is possible to kill one or two crows on the first shot and take a crack at one slow in getting off.

Here is a fascinating night sport that few hunters could fail to enjoy so give it a whirl! Perhaps a few hints which will aid you in an initial hunt are:

Take plenty of shells along, and *Remember a Gun is Extremely Dangerous at Night* when your companions are not always in sight; but if a little common sense is exercised by all, it need not spoil your fun.

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There are probably not more than 250 real Texas longhorn cattle in existence. About 170 are on the Wichita Mountains Wildlife Refuge in Oklahoma.

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Perhaps the Lord denied women a real sense of humor in order that they might love men instead of laugh at them.

# Conservation and Gardens

*(Continued from page 10)*

tion Series." Price $1.75 per set. These four books are designated to provide basic conservation information for school children from the third to the eighth grade levels.

Department of Public Instruction, Harrisburg, Pa.

Bulletin No. 82—Arbor Day and Bird Day Programs for school children.

Pennsylvania Game Commission.

Films and Speakers on Wildlife. Literature and motion pictures on Wildlife.

Your club and club members can play an important part to stimulate interest in promoting Conservation Education in our Public Schools by sponsoring "A Memorial Forest" in honor and memory of those who have given their best to help our future generation "Guard our Heritage; the Soil, Water, Mineral, Vegetable and Animal Life"—the basis of our existence and the foundation stone of our Democracy.

". . . and the leaves of the tree were for the healing of the nations." (Rev. 22:2).

School kiddies of upper Dauphin County planting seedlings under auspices of Tri-County Sportsmen's Club.

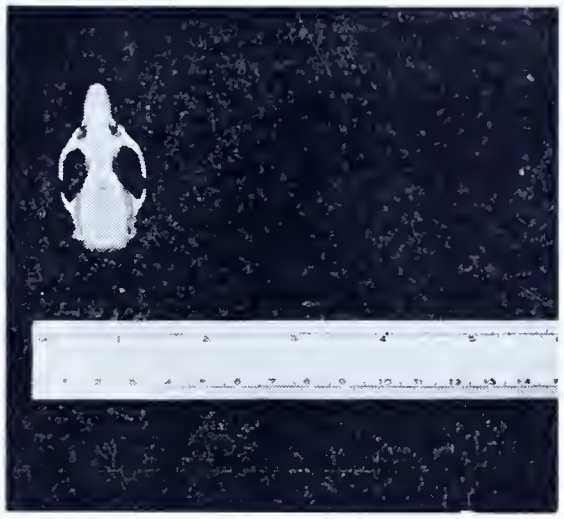
# Killing Techniques of the New York Weasel

*(Continued from page 11)*

dead. The weasel soon dropped the mouse and looked around to see if there were any more mice. The cottontail remained huddled in the corner. The weasel moved slightly and suddenly the cottontail turned and jumped in the direction of the weasel. The mouse was laid quickly in the corner and as if to protect his kill the weasel met the cottontail with wide open mouth. Each time the cottontail jumped toward the dead mouse the weasel would attack. It appeared that the weasel believed the cottontail was attempting to take the kill. Figures 2, 3 and 4 are a series of illustrations of the above experiment.

During none of the experiments did the cottontails show extreme fear by shaking, screaming, or urinating at the presence of a weasel. At times the cottontails proved able opponents for weasels by striking out with their front feet and by kicking with their strong hind legs. From the killing experiments it seems reasonable to assume that weasels probably kill very few adult cottontails in the wild. The weasel appeared to prefer mice to cottontails.

In one killing technique experiment four, three to five week old Ring-necked Pheasants were released singly in weasel cages. All kills by each of the weasels were conducted in the same manner, with a preliminary scream followed by a strong jump for the head. The teeth of the upper jaw pierced the top of the brain case, and the teeth of the lower jaw entered in the region of the auditory process. The forelegs hugged the neck of the pheasant, and the long body of the weasel clung to the back of the bird. The claws on the feet of the strong hindlegs of the weasel dug into the feathers and flesh of the bird. The body of the weasel was extended in a riding position on the back of the bird. No amount of kicking or rolling



**Skull of a rat killed by a weasel. The punctures made in the skull by the teeth of the weasel can be seen on the sides near the posterior part of the skull.**

dislodged the weasel. The pheasant died and then the hold was released. The weasel usually looked around the cage for a brief period before eating. Following the kill the weasel did not lick any blood but rather chewed the throat and the muscles at the base of the skull.

Weasels are often blamed for kills which were made by rats. To determine whether the kill was made by a weasel or a rat, one need only examine the wounds on the prey. If there is one wide, single puncture it was made by a rat, because its two long front incisors grow close together and these are the teeth used in making kills. If two, small punctures about one quarter of a inch apart are found, a weasel has made the kill because the two canine teeth are separated by six small incisors.

**Summary**

1. Nineteen mice, three brown rats, six cottontails, and four Ring-necked Pheasants were presented in a series of experiments to determine the killing technique of New York weasels.
2. Fifteen weasels were used in the killing technique experiments over an observational period of sixteen months.
3. Weasels prefer live or self-killed food.
4. In consuming their prey the weasels showed no food preference between flesh, blood, and brains.
5. Weasels apparently seemed to dislike the intestines.
6. Most of the mice were killed by a bite on the back of the head with the body and legs of the weasel hugging the back of the victim.
7. Brown rats were good fighters but the rats were usually killed by the weasels.
8. The general method of attack was the same on all groups of animals.
9. Four of the six cottontails were killed by bites on the top of the head and ear while two cottontails succumbed from neck wounds.
10. In three instances, neither of two weasels could be induced to make a determined attack or kill the cottontails.
11. Weasels did not suck blood but did lick blood from the wounds at times.
12. Weasels preferred mice to cottontails as food.
13. Weasels probably kill few adult cottontails in the wild.
14. A weasel left a wound of two small punctures; a rat made a single wide puncture.

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# The Twenty-three Pounder

*(Continued from page 12)*

fast. I saw a chance then to catch the 'coon by the tail, and did.

The dog and I both kept our hold, and started rolling down the mountain about 40 yards. I broke my lantern, also my large flashlight. I had a two cell flashlight in my hunting coat, which saved the fight. When old Red had him about all in I stuck it with my knife. I always help my dog. Red is an Airdale with a little hound mixed in and before he would let a 'coon lick him, he would die. So would his master. The 'coon weighed 28½ lbs., which is considered large.

I have killed larger ones years ago when the chestnuts were plentiful. When I brought the animal home, A. J. Herbster, business man of Laurelton, who is an old 'coon hunter, claimed it was the largest one he ever saw. He called up Mr. Heckman at Mifflinburg who came and took motion pictures of old Red, the 'coon and me, so we are now on the screen.

I have hunted ringtail since I was a boy 14 years old. I caught 64 one fall when I was at home. At that time there were no game laws in existence. My Dad had the hides tanned and a robe made out of them. It was the finest robe I ever saw. I was born

**Joe Snyder, Secretary of the Union County Sportsmen's Association, tacks up a new refuge notice on a wildlife refuge project recently sponsored by the club on the Wolfe farm, near Lewisburg.**

in 1869, hunted 'coon with my Grandfather and helped kill and trap many bears. He was a great trapper.

I went along with him to look at his trap one day. There was a monstrous bear in the trap. He shot it, and we had to get the horses and haul it in. It weighed 540 lbs. At that time when we needed meat, it was usually a 'coon, or my Dad would kill a bear or deer. A good hunk of bear meat cooked with a pot of potatoes was counted a good meal. There were four boys and four girls at home then. My Grandfather was a fearless man in his day and lived to be a nice old age of 96 years.

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Final report on the recent California antelope hunt has been completed by J. S. Hunter, Chief of the Bureau of Game Conservation, State Division of Fish and Game, and reveals some interesting information.

Thirty percent of the hunters were armed with rifles of 30-06 caliber; nearly 22% with 300 caliber; and 10% with 30-30 caliber. The remainder used 21 different calibers. Only about 5% were less powerful than the 30-30. One optimistic hunter secured his buck with one shot from a 25-20.

Photo Courtesy, U. S. Soil Conservation Service.

The American Eagle—Mighty Individual—Fierce and Free!

# WITH THE BOYS IN THE SERVICE

Who called your editor on the phone from the Pennsylvania Station in Harrisburg the other night but George Koehler on his way home for a short furlough prior to shoving off. He had much to say in a short time, all favorable. George is in a crack engineer outfit and has learned all the tricks of the trade. He says his Company is made up of a real bunch of fellows. I asked him what he liked most about the army, and he said "to get mail." He promised to write a note for the News soon.

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"Miss all of you. Miss opening of season. Hope you don't miss too many birds.

"Drop a line once in a while. It certainly will be appreciated.

"Probably won't be able to trail a wounded buck thru' the snow where I'm going, but I still can think of the Christmas season.

"With All Good Wishes For A Happy Christmas and New Year, From Bob, Overseas, 1942."—Sgt. Robert D. McDowell.

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Corporal Jim Latimer says "Suppose all the boys are out hunting up there. Sure would like to be there with them now as I cannot keep my mind on my work these days. Tell all the boys in the office I said hello and to drop me a line.

"Do not kill all the birds until I get back to help. Best of luck boys."—Jim Latimer, 431 st. S. Sqdn., Napier Field, Dothan, Alabama.

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"I realize that I have been rather slow on informing you about my army experiences. I have been very busy and couldn't find time to write sooner.

"I get along fine in the army and enjoy my work very much. I work in a Gun Mechanics Battery. I am convinced that my training at the Pennsylvania Game Commission's School has prepared me to meet any situation that may arise. The Military Drill Periods were a great help to me and I did not realize it until I was in the army. I told Mr. Cramer, in one of my letters, that this next class would really benefit with more Drill than we received.

"This Camp is so large that I do quite a bit of hiking on week-ends. I have been fishing and trying to locate game all summer. Quail seem to be rather abundant, there are several plants that produce excellent seeds. I understand that deer and turkey are also on the Reservation, however, I have been unable to locate them. We always had such interesting studies pertaining to the hawk and owl relationship to rodents. Since I am down here, I have not seen any type of mouse or rat, likewise I have never seen a hawk or owl. So the theory seems correct about an abundant rodent population causing an increased migration of hawks and owls.

"My whole life is still wrapped up in the work of the Commission. I was so well pleased with my location in York County. I only hope that I can return and take over again."—Roy W. Trexler, Fort Bragg, N. C.

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Just heard about two former Commissioners who are now in service—Dr. Samuel H. Williams, University of Pittsburgh, last address Fighter Command School, Orlando, Florida. Last report was he had been sent to Cincinnati, then to parts unknown. Also Howard Stewart, Clearfield, Captain, Air Corps, Fort Logan, Denver, Colorado.

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"I didn't write for a long time. Been very busy and tired. Been in the hospital for quite some time and this being deer season and nothing to do but lie here in bed, I had to unburden myself. Only recreation is a thermometer in my mouth plus all the known instruments the army has. Things got pretty rough. Expect to be out and going again in a week or two. At night I often think of the boys at home and of the animals of the Loyalsock. Those animals I knew where I could locate at any time and show people. Loved them as my own, every single one. Raising the young then releasing, caring for the injured and killing cripples to relieve their suffering. At home I never took time out enough to realize or appreciate how lucky I was to be one of the boys of the Commission. In my travels I have seen very little game. Here in Virginia gray squirrels are very plentiful. I think the reason for this is they have so many army camps. Nuts are plentiful. Say hello to Mr. Gordon and all the boys. Answer sometime. I need company and news."—George Koehler, Engineer Replacement Training Center, Co. A, 5th Bn., 4th Platoon, Fort Belvoir, Virginia.

"Have been receiving my copies of the GAME NEWS and must say that you are still keeping up the good work back home.

"After completing my course here in Motor Mechanics, they kept me here as an instructor. Fortunately my part of the work keeps me outdoors the greater part of the time. Most of the instructions are given indoors and that didn't appeal to me.

"The week of instructions I am on deals with the use of winches, snatch block hookups, floating a peep, and motor marches by day and at night under blackout conditions. The work is quite interesting and I like it a lot. If it only was closer to Pennsylvania it would be that much better.

"Had a furlough the first part of November and had a chance to get in one day of hunting. Small game seemed to be more plentiful than it has been for some time.

"The letters from the boys in the service are always read with great interest, and believe the other boys are as interested in them as I. The GAME NEWS enables us to keep track of one another.

"Say hello for me to all my friends around the office."—Corp. Wm. R. Overturf, Co. H, Academic Regt., J.S.S.C., Fort Benning, Georgia.

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"It may be of interest to you to know that the PENNSYLVANIA GAME NEWS is appreciated not only in Pennsylvania but also in England, where it has been received by a former deputy, 1st Lieut. Lynn E. Jenkins, U. S. A., whom I have sent a couple of copies to within the past. It also makes interesting reading for some of the other boys who get a chance to read it as it is passed along.

"He advises me that they sure were good but that they brought back memories which made him a little homesick at this time. One of his letters in part reads 'Glad to know that game is plentiful, and thanks for the GAME NEWS, they really were swell. Maybe I could have it sent over here, but that would be out of the question as it may never get around to me.' Another letter in part is as follows, 'Well dad save me a good dog to at least go into the woods with. I don't know as I will ever care to fire a gun again, but sure will enjoy going out and watch the birds and rabbits having their fun. Guess right now though it is not so much fun for them. I get homesick for it all when I see the game here. I sat outside the hut last nite and the moon was shining bright (a lonesome moon) and watched six rabbits playing in the grass near the hut. When we go on hikes and see gray squirrels, quail and ringnecks, O boy! O boy! The English people do not eat gray squirrels, they consider them rodents and unfit I guess to eat. Rabbits are sold in the local butcher shops. If a fellow had a 22 cal. he really could have fun with the gray squirrels. Oh yes, they have Game Refuges here too.' "—Francis E. Jenkins, Chinchilla, Pa.

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"I received your card the other day and was glad to hear from you. I have recently received postcards from several of the game protectors and I certainly appreciate hearing from them. I always look forward to the GAME NEWS and since receiving your card I am anxiously looking forward to the December issue. After I finish reading them I take them up to the post library in the Service Club where no doubt many of the Pennsylvania boys get a chance to look them over. I noticed one of my bittern pictures in one of the recent issues.

Yes, Leo, we will miss hunting this year but that is only one of the things I miss. I certainly do miss the wife and that home we had for about seven months up in Linesville. I hope that things will continue to go well and that we will not have to miss these things for too long a period.

"I have been picking up a lot of information on entomology, particularly on the subject of mosquitoes. I have been doing practically all of the mosquito identification here on the post and, believe it or not, find mosquitoes rather fascinating. So far we have records for 38 species in the camp area. I have been getting out in the field quite a bit on surveys and collecting trips and get a kick out of the flora and fauna in general. The land here is quite flat and the highest points are 80 feet or less above sea-level. The soil is sandy, overlying a substratum of clay. A considerable portion of the land is swamp and the vegetation there forms a veritable jungle in which cypress, swamp gum, red gum, and red maples predominate. The drier land is covered with a long-leaf, slash pine, and palmetto forest in which practically all of the trees 6 inches or more in diameter have been worked for naval stores.

**Millard Crooks**
**MM1c, Batt 41, Co B, Pln 3**
**Camp Allen, Norfolk, Va.**

"Game seems to be quite plentiful here on the reservation which covers some 360,000 acres. Wild turkeys seem to be very numerous and I have seen several fine flocks recently. I examined one killed here last week and it certainly did look like a bona-fide, pure wild bird. Every feather on its body, including the tail feathers, were tipped with chestnut brown. Deer seem to be numerous (particularly near the coast) and are hunted with dogs. Squirrels, raccoon, opossum, quail, and doves are locally abundant. I have enjoyed observing the bird life and, of course, have made the acquaintance of a number of species not found in Pennsylvania. Mockingbirds and loggerhead shrikes are abundant and early the other Sunday morning I ran into a concentration of pileated woodpeckers the like of which I never experienced before. They seemed to be present by the dozens. Among the new bird acquaintances which I made during the summer were the summer tanager, brown-headed nuthatch, red-cocaded woodpecker, pine woods sparrow, and the black vulture. Meadowlarks, blue jays, bluebirds, flickers, red-bellied and red-headed woodpeckers, tufted titmice, towhees, etc. are similar to those we have in Pennsylvania but many of them are southern subspecies. During the summer evenings I often heard the chuck-will's-widows calling. Within recent weeks many of our northern birds have come down for the winter: flocks of robins, vesper sparrows, white-throated sparrows, ruby and golden-crowned kinglets, and several species of warblers. Only yesterday I passed through a swamp area where the myrtle warblers seemed to be as thick as flies.—Sgt. William C. Grimm.

**Game News wants photos of Game Commission employes in the Service—We are making up a file of them to publish later. How about it fellows?**

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"Was sure glad to hear from you and to receive my copy of the December GAME NEWS. I have spent the last three hours reading it from cover to cover. The NEWS sure fills that gap between "then and now," but I must admit that it did make me homesick—for today, the Pennsylvania boys are enjoying the opening of the deer season. I pass the NEWS around the barracks after I have finished it, for there are about a half dozen more from the Keystone State, and it appears they are all hunters. You have done a fine job with the December issue, it should be called the "Patriotic Issue."

"Have completed eight weeks of my thirteen of basic training and am enjoying Army life more every day. Am in a heavy weapons company and find the study and shooting of the new weapons most interesting. Have made use of the training I received at the Game Commission Training School and in the field with the Commission many many times.

"Sure do appreciate 'With the boys in the Service.' I hope to see some of them, if I should get to their camp. Met Sgt. McDowell at Fort Meade in September. I am keeping their addresses for reference. Also, 'Notes from the Field' are more interesting than ever, tell the boys to keep sending them 'just for the men in the service.' I am sure all the 'soldiers now' look forward to them.

"Hope that the past year was the best game year ever. I regret that I could not be there to enjoy it, but am not sorry I was not there. When this 'job' is done, I am sure we will all enjoy our sport of hunting more than ever before. 'When we get back' is the favorite expression of the boys in my outfit, I hope the Sportsmen of Pennsylvania realize this and welcome the boys home with a goodly supply of game for them to enjoy again."—Pvt. Robert D. Parlaman.

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The office force had a surprise visit on November 24 from Lieutenant Henry Schell. Henry was recently promoted to the rank of First Lieutenant and naturally we all join in extending him congratulations on his well-earned promotion. He planned to do a little small and large game hunting before he goes back to his station in Washington, D. C.

# CURRENT TOPICS

Photo by Philadelphia Daily News.

**Two bears shot by Lanse McCurley, Sports Editor, and Robert (Bob) B. Vale, City Editor of the Philadelphia Daily News. Vale's trophy, foreground, weighed 314 hog dressed, 355 live weight; Lanse's animal, 190 hog dressed and 220 live weight. Both killed on Nov. 19 in Porter Twp., Pike County. Unusual to see two bears on a car, isn't it? Left to right: McCurley, Horace Phy and Editor Vale.**

## *Advice to Sportsmen*

As one who for many years has indulged in the great sports of hunting and fishing, I would like to give you the following advice:

1. Do everything possible, either as a civilian or as a member of the armed forces, to help our country win the war.
2. Do not ever lose your interest in hunting and fishing and in the conservation of our natural resources.

When nations are engaged in a world conflict it is difficult and often impossible to follow the pursuits of peace. However, keep alive within you the thought that this war will end, and that we will again be able to pursue as heretofore our favorite recreations.

In the meantime, the Game Commission, although it has given many men to the services, and its income has been curtailed by the loss of license fees, will carry on to the best of its ability in the work of conservation and better hunting.

Nicholas Biddle.

## *Lycoming Sportsmen—Game Protectors Lauded*

S. Dale Furst, Esquire, Secretary, Consolidated Sportsmen, Williamsport, Pennsylvania.—

"On Wednesday afternoon, October 21, the Consolidated Sportsmen of Lycoming County sponsored a field day on the island across the river from Jersey Shore for high school students who expect to hunt this fall. The activities were well attended, one hundred and forty-two boys and girls were excused from classes and eagerly made the trip to the island.

"In my judgment, the interest and enthusiasm manifested on the part of these students completely justified the time and attention given by those in charge. Students and faculty members who attended the events believe this to be one of the best projects of this nature ever to be held in this section.

"The clear, concise manner in which Game Protectors LeRoy Gleason and Ray Morningstar explained and interpreted laws regulating the use of firearms, the instructive talks on safety by Mr. Gleason and Game Commissioner Moltz, together with an excellent demonstration of the proper method of shouldering and using guns by Herbert Poff and the Commissioner certainly made an instructive and interesting program.

"I am sure that I express the sentiment of the people of Jersey Shore when I say that this field day was a great success and was decidedly a forward step in your policy. I should like to suggest that a field day for young folks be perpetuated and that it be expanded to include adults."—Ira V. Grugan, High School Principal, Jersey Shore, Pa.

## PITTMAN-ROBERTSON REVENUES

When President Roosevelt signed the Pittman-Robertson Act on September 2, 1937, no one ever dreamed that the excise tax revenues from sporting arms and ammunition would reach the proportions that they have. From that date to June 30, 1942, these revenues have amounted to $17,292,224.33, and they have all been earmarked for aiding wildlife restoration projects in the states.

Not all of this money, however, has been appropriated. During the same period appropriations have been made by Congress totaling $9,000,000, which includes the $1,250,000 for the fiscal year ending June 30, 1943. Thus it will be observed that there is still a backlog of $8,292,224.33 in this special fund.

Some conservationists were, and for that matter still are, alarmed over the fact that Congress has not appropriated each year all the money earmarked into this special fund. This year, for instance, the Congress appropriated $1,250,000 out of this fund for projects set up by the states and approved by the Fish and Wildlife Service. This was a million and a half dollars less than that appropriated last year. With the war effort at white heat and State Fish and Game Commissions curtailing all but the most essential work, the sum of $1,250,000 is about all that can be wisely spent on projects which have been submitted. We have been informed by Fish and Wildlife administrators that this amount will cover the real needs of federal aid during this year.

There is another viewpoint which has not been brought out into the spotlight. It is that during the war the manufacture of sporting arms and ammunition is being definitely slowed down. This means that for this season most of the shot gun and rifle shells will be purchased out of stock manufactured prior to June 30, 1942, on which the 10% excise tax had already been paid by the manufacturer. Accretions to this special earmarked fund during the war may fall materially and it is important that there be a substantial balance in the fund to take care of next year and the next and next, if the war lasts that long.

After the war there will be a great impetus given to wildlife management. State Fish and Game authorities will go into an expansion program and many new Pittman-Robertson projects will be set up. Wildlife will once again come into its own and reach for the sunlife of activity.

The Controller of the federal government has recently said that the 10% excise tax on sporting arms and ammunition must be set

*(Continued opposite)*

**"Gosh buddy you gave me a scare . . . with my glasses off I thought for a minute you were my wife!"**

# Their Day

They'd start gleefully off together
He would set the pace,
She'd keep close beside him,
And eagerly watch his face.

They would stroll along in silence
Until he'd softly say
"This is beautiful cover, baby,"
Then she'd rush away.

He'd follow along behind her
While she'd circle far and wide
He'd watch her beautiful body
His eyes were full of pride.

Suddenly she'd stop before him
Her body seemed to freeze.
Then he'd speak so gently,
Hold it—baby. Please!

After a few ecstatic moments
He released her from her poise,
She raised her dark eyes heavenward
And watched the bird as it rose.

He was filled with a tenseness,
But he took most careful aim
For if he missed his target
That would spoil their game.

The exciting moment was over
They eagerly searched the spot,
She'd never made a better point
Nor he, a better shot.

He pressed her close against his knee,
And praise came from his heart.
She raised her eyes affectionately
She knew she'd done her part.

Their day in the woods was ending,
The sun was behind the hill
But they'd had their pleasure together
And every hour had been a thrill.

She glanced at him appealingly
As she walked slowly by his side
He noticed that she was weary
As he looked at her with pride.

He drew her gently to him
As he sat down upon a log
And fondly he caressed her,
For SHE was his HUNTING DOG.

At home some one was waiting,
And watching for this man.
But she was only his wife,
So he didn't give a Damn!

By Emma Jane Markley.

---

aside in the special fund created by the Pittman-Robertson Act and that these revenues can not be spent for any other purposes than those provided in the act. Conservationists, therefore, need have no fear that their hard worked for program will be upset by any ruling of the Treasury or other agency of the government. It is safe. Congress will give heed to the merited needs of this program and when the post-war period comes there will be a real nest egg to provide adequate and needed funds.

—*Conservation News.*

**Deputy Game Protector P. C. Galbraith, New Florence, with large (six feet, four inch) pilot blacksnake.**

### W. C. Henderson Retires

Closing a career of Government service which began in 1897, Walter C. Henderson, assistant director of the Fish and Wildlife Service, United States Department of the Interior, retired on November 30, 1942, because of ill health.

Albert M. Day, chief of the Service's Division of Federal Aid in Wildlife Restoration since its inception in 1938, has been named to succeed Mr. Henderson. Mr. Day, who succeeded Mr. Henderson, thus becomes Assistant Director of the organization in which he was first employed in 1919 as a temporary field assistant in rodent control work in Wyoming. With the exception of a year's leave, he has been continuously connected with the Service.

### New Commissioner

**We are carrying the name of a new Commissioner on the Masthead this month—Hon. Carl W. Rothfuss of Williamsport, who was appointed by Governor Arthur H. James on Dec. 9, 1942 to succeed Commissioner Harold Moltz, also of that city. A photo and write-up of Commissioner Rothfuss will appear in the February issue.**

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### Trolley-wire Stops Crop Damage

A Virginia Game Commission release describes a brand new* method of keeping deer away from farm crops—a barking watchdog, leashed by a short chain to a long overhead "trolley-wire" stretched between two trees at opposite ends of a field. According to the Commission this worked for Warden O'Neil of Wise County in keeping deer out of a strawberry bed when intermittent shooting, flashing lights and smelly repellents failed. Not a single deer visited the field after the dog took over!

The Commission recommends this practice as a good means of making a virtue of a deer-chasing dog's chief vice. However, it warns that wire or chain should be equipped with insulators to prevent painful and terrifying shocks to the dog during electrical storms. Care should be taken to give the dog a cleared runway along the wire, so that the chain cannot become entangled in trees, brush, crops or other incumbrances. Water, food and shelter for the dog's comfort must also be provided.

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**We tried this experiment in Pennsylvania twenty-five years ago. It worked swell until the animals became too abundant—then it was practical only in protecting smaller areas such as truck patches, etc., in the agricultural districts.*

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If Nazis do take Gibraltar, a certain insurance company is going to be plenty mad!

—*Typo Graphic*

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The most serious mistake you can make is the one from which you learn nothing.

—*Typo Graphic*

Photo Reading Times

**Seth Gordon, Executive Director of the Game Commission, tantalizes officials of the Berks County Izaak Walton League with the delicious aroma of a real honest to goodness wild turkey gobbler, at the League's game dinner recently.**

Self Photo by Dr. Strealy, an expert photographer. Presented to Seth Gordon in 1920. This deer was the first one known to be shot on the first day of the "buck law" year (1907). Wounded at 8:00 A.M. and pursued and killed at 11:20 A.M. same day. It was found to be shot five (5) times while on the chase, in Quarry Hollow near Caledonia, Franklin County. (Note by Dr. Strealy himself.)

Dr. Strealy was one of the founders of the Locked Antlers Club near Caledonia, South Mts. and always took keen delight in photographing the fine trophies of their annual deer hunt, which after being hung on the pole were neatly "groomed" for the occasion by Thos. M. Horn of Camp Hill, a C.V.R.R. engineer.

## THE LOCKED ANTLERS

*By* Matthew Welsh Strealy

This is the spot where they died,
With none to observe them
Save their mute fellows, wide-eyed
But helpless to serve them.

Here in the forest they met—
Their fronts grimly lowered
As unto battle they set
Their prowess untowered;—

Met, and these antlers of might—
Their prongs interlocking—
Head unto head fettered tight,
The foes as if mocking.

Held them, their blent hurried breath
Blown hot in their faces—
Held them till thirst ushered death
To seal their embraces.

Servants of Hatred, and slaves
To Pride and to Passion,
Look you! What terrible graves
Death loveth to fashion.

Here lie the mouldering rags
Of Passion rude strangled—
Here lie the skulls of the stags,
With horns intertangled.

# NOTES FROM THE FIELD

"I have another report of a mountain lion or panther in the Crooked Creek section. Someone turns in a report of this animal at least once each year. This time it alleged to have been seen and heard by a crew engaged in drilling a gas well at night. They claim to have preserved a track in proof." —Game Protector L. B. Rosenkrans, Division "E", August 31, 1942.

"Rattlesnakes and copperheads appear more plentiful in this section this summer than in previous years. During the mowing season we killed 10 copperheads, 6 rattlesnakes and two blacksnakes. The forest rangers and other people who are working in the woods report them quite numerous." —Game Protector Harold E. Russell, Division "D", August 16, 1942.

"Finished mowing refuge line on refuge No. 24 on August 20. We found more rattlesnakes along this line than we have found in a number of years. On August 19 found four large rattlesnakes on about 20 feet of the line. These are the first snakes we ever found on this section of the line."—Game Protector Edward Shaw, Division "F".

"On Friday October 9, 1942, apprehended Forrest Scponie and August Gentile, two Italians from Elmora, Pa. These two men had 11 unique snares set to take song birds with 3 deadfalls and 2 home-made traps made out of discarded wash tubs. Both men pleaded guilty to using 8 illegal devices and were fined $84.75 each. One of them lived in this country for thirty years and is not a citizen."—District Game Protector Bruce W. Catherman, Division "G."

"Saw a large bull elk near Headquarters. It had a big rack of antlers, ten points. Elk tracks can be seen in quite a number of places on the game lands. The refuge wire has had to be repaired several times on account of elk running against the wire, and either snapping the wire or knocking out the staples."—George E. Sprankle, E-5, Cameron-Elk.

"The Farm Game Projects were all hunted heavily the first day of small game season. In some sections of the Division the hunting pressure was light with a small amount of game being taken. The adverse weather conditions caused quite a few hunters to return from the field in the early afternoon."—Herbert P. Kaufman, Venango, Crawford, Erie, Dauphin.

"On August 24 while out in a briar field near my home I saw a large watersnake which I killed. Upon opening it I found a 5½ inch fish which it had taken from a pond nearby and 27 little unborn snakes. Each of these little snakes were inclosed in a membranous sac filled with a watery-like fluid. When the sacs were opened the little snakes (about 4½ or 5 inches long) would wiggle and crawl about. I killed all of the 27 little ones and measured the old snake, which was 35 inches long."—Raymond Holsapple, R. D. No. 1, Monongahela.

"A farmer in Venango County, hearing a noise in his cornfield late one evening, fired two shots at what he thought was a deer. Upon further investigation he discovered he had killed his own cow."—Game Protector William T. Campbell, District No. 10, Division "F."

For the first time in my life I witnessed an active battle between two ruffed grouse. They were so busily engaged that I walked

Notice: In regards to booking the picture "The Making of a Shooter," recently released by the Arms and Munitions Manufacturers' Institute N. Y.; sportsmen will be glad to learn that the Division Supervisors have each been supplied with a copy of this excellent film. In the future all requests for showing it in Pennsylvania must be directed to the Supervisor in your locality.

within thirty feet of them. There was plenty of action for quite some time. Finally it became too hot for one of the contestants and he took to the air with the victor in close pursuit.

—*Howard F. Hoffman, B-4.*

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The first day of the duck season was the best I have seen in the four years that I have been in the Pymatuning area. The weather was favorable and due to it being the kind of a day that ducks keep moving about, the hunters, had lots of shooting opportunities. All the hunters seem well content with the amount of shooting, even though a great many were duckless. There were more hunters this year than in the past four seasons.

—*Raymond Sickles, F-3.*

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"Some letters of interest were read while visiting the Indian Rock Game Farm in the vicinity of Newtown. They have hundreds of ducks in the Neshaminy Creek and the Mallards are banded. The point of interest was that some of the ducks were killed in Oconomowac, Wisconsin; International Falls, Minnesota; Lindstrom, Minnesota; Sudbury, Ontario; Sanford, Maine; Monroe, New York; Saginaw, Michigan; Maryland; Virginia and Connecticut and last year a duck raised on their place in the Spring was killed in Maine that Fall. These bands were returned to the Indian Rock Game Farm with the above letters. All of their ducks are wild and very scary and free to fly wherever they wish to go. There is no question in the fact that a lot of good has been done by the Indian Rock Game Farm for the duck hunter in the U.S.A. and Canada."—S. Earl Carpenter, Game Protector, Bucks County, District A-8.

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"Rain the first day of the small game season didn't dampen the ardor of the sportsmen. More traffic went down Route 19 and more hunters were observed in the field than on any opening day in the last five years."—F. H. Coffin, F-1, Erie.

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"We had a very cold day on Tuesday and also some snow flurries. This caused a lot of the ducks to move out of the Refuge and head farther south. Also on that day I saw at least ten different flocks of whistling swans coming in from the north. Most of the swans rested at the refuge that day and night and started southward again the next day."—Raymond M. Sickels, F-3, Crawford.

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"Recently saw a house cat and a buzzard feeding on carrion. The cat had possession of the meal when I observed them and the buzzard was sitting on the ground not more than three feet away patiently awaiting its turn. This occurred within 100 feet of an occupied farm house."—Edwin W. Flexer, Game Protector, District 11.

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"While patroling on the night of October 18 I saw four bears, two adults and two cubs eating apples. The two cubs stayed in a tree while the older ones picked up the apples they knocked down to them.—James A. Osman, Game Protector, District 2.

## LOST

Lost: Male foxhound; answers to the name of King; age 3 years; white, black and tan. Pennsylvania State Federation of Sportsmen's Clubs registration number tattooed in right ear, 54-6. Anyone having information concerning this dog contact John Fignar, 203 Greenwood St., Coaldale Pa.

Lost: Two large make Bluetick hounds in the vicinity of Blue Knob. Name plates and license on collars. Call 3861 Portage before 6:00 p. m., or write Joseph F. Oravecz, Portage, Pa.

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Here in the states we hear a story of wolf hunting in Alaska by airplane. It may be true and it sounds like fun if you have the equipment. You need a fliver plane, a pilot, and a heavy gauge shotgun. The best time is when the snow is deep and soft. With the above setup, the hunter sets out to find wolves in the open where they can be harried and followed by a plane. With a little practice, so they say, a hunter can get to hitting wolves quite regularly and the bounty, providing you can recover the bodies, helps to defray the expense of the trip.

—*John Crowe, Erie Dispatch Herald.*

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The duck season opened with three days of rain. Ducks were plentiful and a good time was had by all the hunters and most of the ducks.

—*R. R. Schmid, F7.*

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"On September 24 a grouse flew into town and killed itself by flying into the Courthouse building just outside the window of the County Treasurer's Office. Some local fellows voiced the opinion that it had come into town to check on the sale of hunting licenses, and finding a large number sold already decided to commit suicide."—Game Protector John S. Shuler, District 15, Division "G."

**A Very Impatient Woman?**

A group of soldiers were going along a road near Juneau, Alaska. As they passed a settler's cabin they saw the woman of the house emerge, rifle in hand, and look expectantly toward the chicken house. Something was wrong there for the chickens were in an uproar. Then from the door of the chicken house came a bear. Cooly as if it were an every day chore the woman raised the rifle and shot the bear. To the excited spectators she explained that the bear had already killed two goats and two calves, and that she was running out of patience.

—*John Crowe, Erie Dispatch Herald.*

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"It rained all day on the opening of small game season in Crawford county, but this did not keep the hunters in. I believe there were almost as many hunters in the field in this section as there has been in past years."—Elmer D. Simpson, F-2, Crawford.

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Game Protector Bruce P. Yeager, District C-9, sent in an immature Cooper's Hawk recently to the claws of which still adhered some feathers—undeniable truth of a story which Alva Robbins, a farmer, sportsman and great lover of wildlife, R. D. No. 1, Milton, told Yeager. Robbins shot the bird while it had an Hungarian Partridge in its claws.

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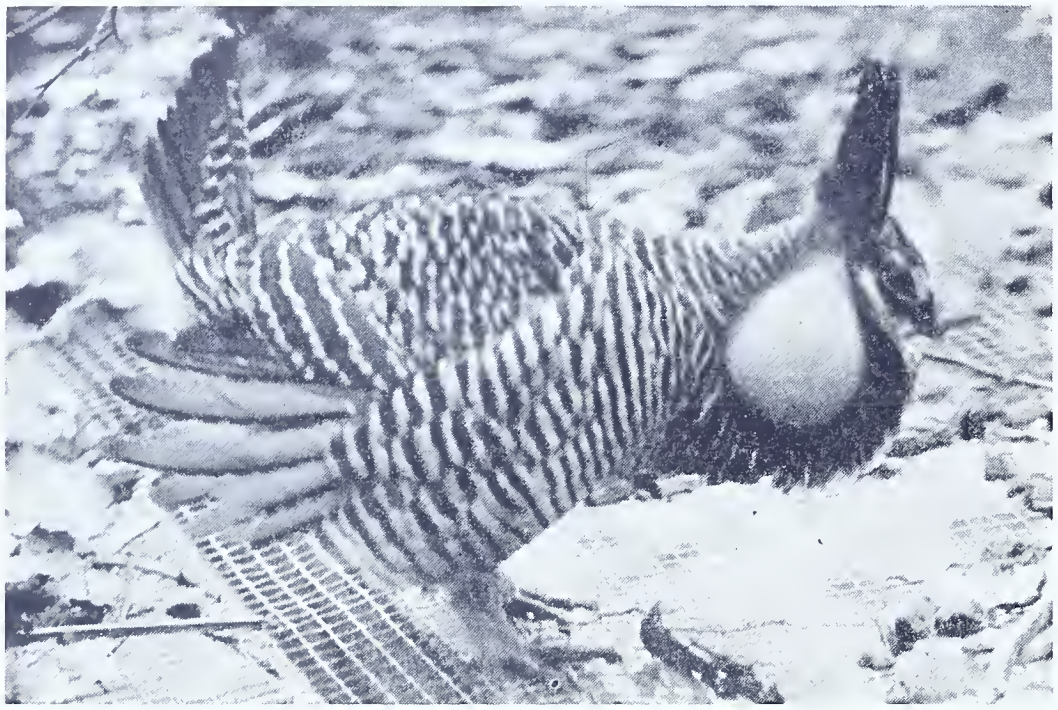
Flowering Shrubs of California—By Lester Rowntree: A book full of new material about plants. Horticulturists, nurserymen, and gardners will find this publication indispensable. Information is given as to the culture of every shrub, its proper setting in the garden, the kind of soil it needs, the exposure which best suits it—in fact, all the information any gardner expert or novice, needs to grow a wild shrub to its greatest beauty. It is not a botanical manual. There is humor throughout the text and it can be read with pleasure by people who do not know anything about botany but who want to know shrubs and how to grow them. Illustrated with 56 pages of photographs by the author. Published by the Stanford University Press; price $3.00.

Don't forget to do a good job of feeding this winter



Male Pinnated Grouse.
R. E. Follett, Secretary and Director, Michigan Zoological Society, Dime Bank Bldg., Detroit.

The eighth annual banquet of the Bellwood Sportsmen's Association on October 29, drew a splendid group of over 360 sportsmen. Addresses were given by Samuel H. Jubelirer and Seth Gordon, Executive Director of the Game Commission. This up and coming organization has a splendid five-point program of conservation as follows:

1. To assure maintenance and improvement of the Sportsmen's Dam and Park.
2. To increase local stockings of game and fish.
3. To carry out the game feeding program.
4. To improve the local game refuge system.
5. To educate in the principles and observance of good sportsmanship.

In the way of replacing natural resources, let us refer to the Huntington County Game, Fish and Forestry Association and the program of its Forestry Committee.

Since 1939 the association has distributed over 65,000 seedling trees, shrubs and vines. This, without a doubt, is a fine record and one to be proud of. While it is true that a number of these seedlings were planted for the purpose of producing natural game food, which fact is not without value in our war effort, a large number of the seedling trees distributed will produce timber, and timber is now and will continue to be very important to our state and nation.

During the past month the association distributed to its members 22,150 seedling trees and shrubs for planting in the woodlands of Huntingdon County and plans are already made for another distribution next spring. Of the many varieties of seedlings distributed, some are listed, as follows: Black Walnut, White Mulberry, White Pine, Red Pine, Apple, Japonica Rose, Bittersweet, Hybrid Chestnut, Chinese Hairy Chestnut, Dogwood, Norway Spruce, Frost Grape and Siberian Pea. From the list, the walnut, pine and spruce would be considered as valuable timber producers.

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County Treasurers and Township School and Road Authorities were paid a total of $35,041.99 this year by the Pennsylvania Game Commission as fixed charges on lands acquired by the Commission in the counties and townships concerned.

Although Commonwealth-owned property is not subject to assessment for taxes, the Commission in lieu thereof pays to County Treasurers one cent per acre for each acre owned in the County concerned. Likewise, it pays two cents per acre into the treasuries of the Board of Road Supervisors and a like amount to Boards of School Directors, for each acre acquired in their respective townships.

Checks amounting to $7,022.62 were recently sent to 61 County Treasurers. Payments to the Treasurers of Boards of Road Supervisors amounted to $13,955.71, and to Boards of School Directors, $14,063.66.

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The Walnut Rod & Gun Club hunting lodge located in Cogan House Township, Lycoming County, near White Pine, Pa., has been robbed of 24 bed mattresses, 1 single barrel shotgun, 1 pair of binoculars, 1 pair of hunting boots and bed covers and pillows. Any information concerning this theft should be directed to Mr. Walter L. Grill, Secretary of the Walnut Rod & Gun Club, Inc., R. D. 1, Temple, Pa.

---

The Fish and Wildlife Service administers more than 260 national wildlife refuges for the restoration of all forms of wildlife.

Wm. S. Bledso, Berwick, a "first timer" with 125 pounder also killed on Game Lands No. 13.

Photos by D. L. Batchelor.
Arthur H. Becker, Kulpsville, killed this 140 pounder taken on Game Lands No. 75.

Albert L. Shafer, Williamsport, with small bear killed 2d day of season on Game Lands No. 13, Sullivan County.

**1500 Attend Wayne County Sportsmen's Field Day**

With the weather man cooperating 100%, the fifth annual Field Day, October 11, of the Wayne County Sportsmen's Association was the most successful ever held by that organization. The day was "made to order," and it is estimated that over 1500 people were in attendance.

There was keen competition in practically all the events and in many cases there were tie scores which necessitated an additional contest. The dog trials were very interesting. Some very fine dogs competed and provided plenty of excitement.

Seth Gordon, Executive Director of the Pennsylvania Game Commission was a guest and complimented the association on the very fine manner in which the field day was conducted. He said that events of this kind are really "The American Way" of life. John L. Neiger of Scranton, member of the Fish Commission was also a guest and spoke briefly. Sportsmen were in attendance from all sections of north-eastern Pennsylvania, New York and New Jersey.

At its meeting in September the Wayne County Sportsmen's Club had a feature attraction in the appearance of Robert White Eagle from Camp Lenapee. White Eagle, a member of the Cherokee tribe, gave a very interesting talk on the lives and habits of the American Indian, and pointed out the many fallacies which the white people think concerning the Indian. He concluded his program with a native scalp dance.

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Photos courtesy E. W. Nicholson.

**Annual Field day at Pennsylvania Fish and Game Protective Association, Philadelphia, held during the past summer. These boys always have a bang-up time.**

Believed to be one of the largest single unit of a sportsmen's organization in Pennsylvania, the Lehigh County Fish and Game Protective Association of Allentown, reported a total of 1,610 paid members for 1942. The report made before a recent meeting of the Association's executive committee showed that 1,507 were senior members, 61 junior members, and 42 members in the United States armed forces. Lawrence W. Knoblach, chairman of the 1942 membership committee, in submitting the current roster, stated that 876 were recruited during the drive this spring as suggested by the Pennsylvania Federation of Sportsmen's Clubs. The current membership of 1,610 represents the biggest enrollment of the Lehigh County association in its 21 years of existence. Last year the official roll was checked off at 1,067.

Clair Mengle of East Texas, Lehigh County, has been appointed by the executive committee to head the 1943 drive to get under way some time in the early part of next year.

Officers of the Club are: Lawrence W. Knoblach, president; Wayne Schneck, vice-president; Charles W. Wolf, treasurer; Milo M. Miller, honorary treasurer; and Charles H. Nehf, secretary.

The Lehigh County Fish and Game Protective Association is a supporting member of the Federation of Sportsmen's Clubs in Lehigh County, the latter embracing 19 member clubs and having an official membership of 4,420 members in 1941. Lehigh was the second largest organized unit in Pennsylvania last year, second only to the Allegheny County sportsmen.—Charles Nehf, Sec., Northeast Division, Pa. State Federation.

**"Getting the hunter's goat." E. L. Fenstermaker, Lancaster, shares lunch with a couple of tin can eaters.**

---

It takes about 1,800 Olympia oysters—the native oyster of the Pacific Coast—to make a gallon.

---

Woman's place is in the home—on pot-of-gold program nights, and the evenings when father brings home his pay.

# THE QUIZ BOX

Q. Do our Pennsylvania black bears have young every year?

A. To date this remains a debatable question because of lack of conclusive evidence.

Q. How many young do our bears have per litter?

A. From one to four, with an average of two.

Q. Do bears eat meat in any great quantity?

A. No. They are almost strictly vegetarians feeding on roots, grass, fruit, berries nuts, and corn. Occasionally, however, they will eat honey, fish, frogs, and carrion. On rare occasions bears will kill and eat livestock, but this is definitely the exception.

Q. Is it the young of the cottontail or snowshoe rabbit that is born with its eyes open?

A. The snowshoe rabbit, which is the Varying Hare.

Q. When was the law passed that prohibited the use of dogs in hunting black bear?

A. In 1935.

Q. Do grouse migrate?

A. Their movements can hardly be termed migrations. During the October "crazy flight" they may fly some short distance beyond their normal cruising radius.

Q. How can you tell a male grouse from a female grouse?

A. The following description is generally recognized as being reasonably accurate, it applies, however, to adult birds only: the ruff of the male bird is generally larger and much more prominent than that of the female, and the dark band of feathers that extend from the ruff across the breast is usually darker in the male. The tail of the male bird is generally longer than that of the female and the black band near the tip of the tail feathers is more likely to be solid rather than broken. Inasmuch as all of these markings are subject to certain variations they cannot be considered as infallible.

Q. How can you tell our native Pennsylvania rabbit (cottontail) from the cottontails purchased from Missouri?

A. Frankly, I know of no way of telling one from the other.

Q. Does the bobwhite quail have a harem of hens the same as the ringneck pheasant?

A. Our quail are considered definitely monogamous.

Q. Is it possible to tell the male from the female bobwhite?

A. Yes, quite easily. The male's throat is white and there is a definite white line over the eyes. The female, however, lacks the white eye line and her throat is buff colored.

Q. Is the muskrat that builds the reed house a different species than those that burrow in the banks?

A. No. Our Pennsylvania muskrats are all one species and the difference in their house building practices is only a matter of them adapting themselves to their particular environments.

Q. How many litters of young do our muskrats have annually?

A. From three to five. There are generally from four to nine young to a litter.

Q. When were beavers first stocked in Pennsylvania?

A. To the best of our knowledge about 1917.

Q. What Pennsylvania mammal has the most teeth?

A. The opossum.

*Distribution of Flesh of Deer Killed by Party*

Q. When six deer are killed by a party of ten men hunting together, are the six who killed the deer required by law to make distribution of the flesh so that the other four will receive shares?—G. H. M.

A. The law provides that the legal owner of a deer is the person who inflicts the mortal wound which brings down the animal and enables him to take possession of the carcass. However, custom established by our ancestors throughout a long period of years has created an unwritten law whereby the flesh of deer killed by a hunting party is equally distributed among the members of the party, regardless of who kills the deer. It has long been the custom for the hunter who kills the deer to retain the head and hide, but it is generally understood among most hunters that the flesh of the deer shall be distributed among all participating hunters. Should a hunter exercise his somewhat selfish right under the law to retain the entire carcass of a deer which he has killed with the assistance of fellow hunters, this would constitute an exhibition of poor sportsmanship, to say the least. Inasmuch as existing law clearly provides that no hunter may participate in killing more than six deer a season, we consider it only reasonable to interpret this provision to infer that such hunter is entitled to share in the venison taken by his party, even though that hunter is not fortunate enough to kill a deer himself.—Chas. F. Stambaugh.

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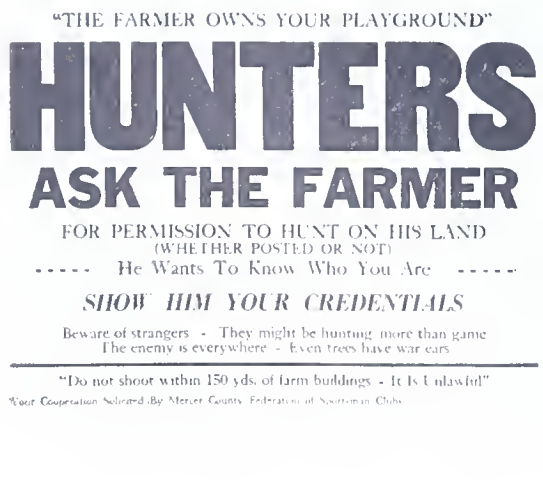
The poster below designed by the Mercer Co. Federation of Sportsmen's Clubs, won a lot of favorable comment from Farmers and Hunters in Northwestern Pennsylvania.




## OH NOBLE DEER

I hunted you from dawn to dusk,
A gamer creature there is none
Oh mighty deer my gun will rust
For my job here has just begun.

You are a monarch proud and true
With gaping wound your heart kept beating.
The snow turned red and your heart blue
Onward always never retreating.

The Keystone hills again will see
December snows and men in red.
It's for some but not for me
I have a bigger job instead.

You taught me cunning and how to sneak
O'er fallen logs and thorny briers.
You taught me silence when oft' I'd speak
You gave me a heart that never tires.

The things you taught me I can use
Somewhere across the lonely sea.
Your every trick and every ruse
Will help to keep this country free.

Oh noble deer, when this year,
The rifles roar and bullets shriek.
Think of me and ease my fear
I, too, will be the one they seek.

—Pvt. Frank M. Tieber
Service Co., 111th Inf.
Fort Monroe Virginia

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*Photo by Fabian Bachrach*

**HON. EDWARD MARTIN**
**Governor of Pennsylvania**

## TO THE SPORTSMEN OF PENNSYLVANIA

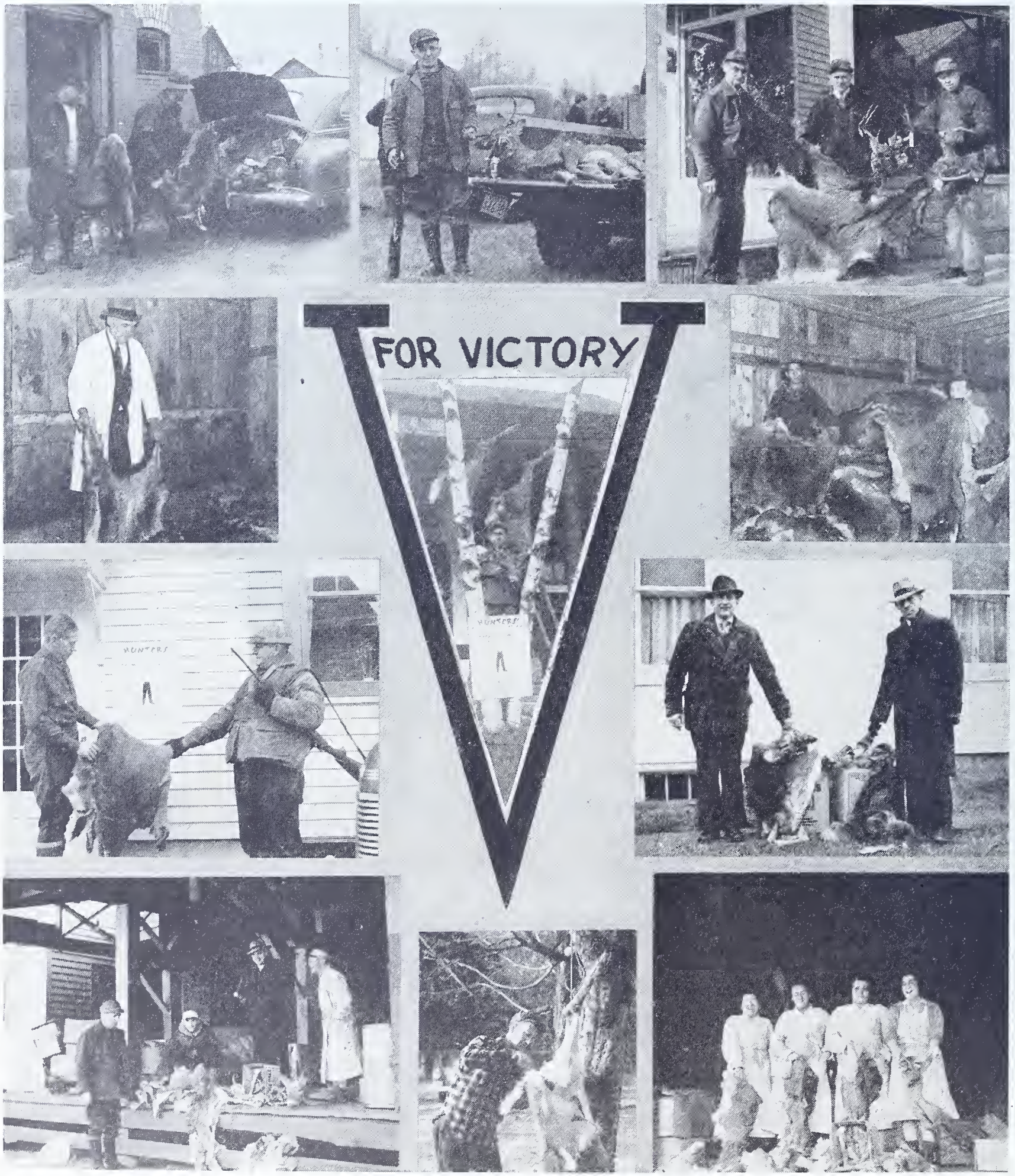
I appreciate the opportunity, through the Pennsylvania Game News, to extend to you my best wishes.

The funds created through the hunting and fishing licenses will be zealously guarded for the purposes for which they are intended.

The conservation of natural resources, and the preservation of all outdoor life, are two things closely connected and should have the help of all good Pennsylvanians.

Let us earnestly uphold the rules and regulations as they concern these important things.

Edward Martin




Pennsylvania hunters are to be commended very highly for the part they played in contributing deerskins toward the war effort. They responded as true sportsmen always respond—nobly and generously.

# DEERSKINS AID VICTORY

THE deerskin salvage program, which embodied two separate projects, brought fine response on the part of our sportsmen despite the fact that it was necessary to withhold publicity on one of them until just before the deer season opened awaiting final instructions from the War Production Board.

Under one of these projects the International Leather Workers Union agreed to make, free of charge, vests for merchant seamen from deerskins contributed by Pennsylvania sportsmen. This project was brought to the attention of and approved by the Commission well in advance of the deer season and enabled the Commission to acquaint the sportsmen with it through a special article in GAME NEWS, which appeared in December; through an extensive newspaper and radio campaign; and through the distribution of 5,000 special posters by our field officers.

The other project developed out of a request from the War Production Board, which solicited all deer hunting states in an effort to salvage as many domestic deerskins as possible and get them into the channels of trade. The Government's request arose out of the dire need for domestic leather to make gloves and mukluks for our armed forces, the supply of imported tanned skins from other countries, amounting to more than 500 thousand tons annually, having been cut off.

Unfortunately this project was not brought to the Commission's attention until almost the last minute. However, its importance was so great that the Commission felt duty bound to support it to the limit, notwithstanding its earlier obligation to the Leather Workers group.

Since the Government's request was right on the heels of the deer season, which opened November 30, the Commission wasted no time but delegated a personal envoy to Washington on November 16 for a conference with liaison officials of the U. S. Fish and Wildlife Service, the U. S. Forest Service, and representatives of various Leather Manufacturing Companies to determine the most expeditious and efficient manner of getting the largest possible number of deerskins into circulation lawfully.

The conference proved enlightening from many standpoints. When it was learned, for instance, that Pennsylvania could not legally permit the sale of deerskins by individuals, and that the Commission itself could not sell them except under competitive bidding, the problem naturally became more complex. There was talk of price ceiling, freezing the skins, or establishing collection centers with which game officials might cooperate, and under which hunters could contribute their deerskins in the same manner as they would under the vest project.

The Leather Workers were notified of this sudden turn of events, but instead of being chagrined, or feeling that they were being let down or discriminated against, they reiterated that they were interested only in salvaging the most hides for the most urgent purpose, and even went so far as to say that they would be glad to turn over some or all the skins they received to the glove project if Uncle Sam felt it was the more important—a fine patriotic attitude, to say the least.

Unfortunately no definite decision was reached at the Washington conference. The War Production Board apparently preferred to wait responses from other deer hunting states before rendering any decision. From information relayed to it by the liaison officers of the Fish and Wildlife Service and the U. S. Forest Service it probably realized that other states, like Pennsylvania, had their own particular problems, especially legal problems, and that it would be difficult to lay down or formulate any general procedure for all to follow. At any rate, our representative returned to Harrisburg with no specific instructions as to procedure, which was extremely difficult with the season only two weeks off, and the matter of adequately publicizing the project yet to be taken care of.

When at the last moment the War Production Board was not forthcoming with any general plan for acquiring the skins, claiming that their primary interest was only to get them salvaged and see that they entered the regular channels of industry in the same manner as other salvaged war materials, the Commission had only one recourse—to ask hunters who did not want to contribute to the Leather Workers vest project to turn their hides over to its field officers, later to be sold, as illegal hides are sold to the highest bidder, the proceeds to be placed in the Game Fund to help finance the expenses, such as printing, express, packing, etc., necessary to advertise and administer the project.

The Commission was willing to pay the express charges on all skins turned over to the Leather Workers group, too, but an informal opinion from the Attorney General's Office prohibited that action. The Commission was advised, however, that it could legally pay the express and other expenses on all skins shipped to its officers to be sold into the channels of industry if reasonably sure that enough revenue would be received as a result of such sale to defray those expenses.

At this writing no complete figures on the number of skins contributed are available. It is believed, however, that the sportsmen responded very well. Whether any net balance will accrue to the Game Fund after all expenses are paid is problematical. It may have cost the Commission as much to launch the program as the raw material was worth. However, it was never the Commission's intention to make any money for the sportsmen out of such a purely altruistic and patriotic endeavor. It took the only course open to get as many deerskins into the regular channels of trade as possible in order to help the all-out war effort. Even though it may have cost the sportsmen as much as the commercial value of their deerskins, the project was still worthwhile. If on the other hand some small profit will have reverted back to the Game Fund after all expenses are paid, it will have certainly gone to the right place, because after all it's the sportsmen's fund, and the sportsmen were the contributing factors.

**Deerskins donated by local nimrods of Lancaster toward the war effort. They will be made into 180 pairs of gloves for service men fighting in frigid zones.**

# BIRTH

## in the opossum family

*By W. J. Hamilton, Jr.*

***Reprinted Courtesy Natural History, Nov. 1942, with special permission of the author. Photos by Hugh S. Davis. Drawing by Lloyd Sanford.***

PERHAPS none of our native mammals has excited more curiosity than the opossum, *Didelphis virginiana.* Its appearance alone is sufficient to arouse interest, and when we inquire into its mode of life, we find these most distinctive.

The opossum may be recognized by its long gray hairs, mixed with white and black, its white face, black and white naked ears, and long prehensile tail, which is quite devoid of fur. It is about the size of a house cat, varying in weight from three to seven pounds, although individuals often attain a greater weight.

In one form or another it is found throughout most of the United States, and in spite of persistent persecution by man, manages to maintain its numbers from year to year. Indeed, its numbers are even increasing, and reports during the past half century indicate that it is spreading into the north. In central and western New York the opossum was a curiosity 20 years ago, so much so that trappers, who took an occasional one in their skunk traps, were at a loss to know what manner of beast they had caught. For years it has ranked as an important game and fur-bearer in all of our southern states; soon, it appears that the opossum will play a like role in the north.

The opossum is no epicure. It feeds upon what is available, eating fruits and berries, worms, insects, snakes, small mammals and birds, carrion, garbage, and almost anything edible which happens in its path. From the stomach of one trapped near Ashville, North Carolina, I took a tiny box turtle almost entire. It delights in the persimmon, feeding recklessly on the fallen fruit or climbing into the branches to gather the frost-tinted crop.

Through the long Indian Summer, the opossum has fed with abandon, increasing in weight and storing a substantial layer of fat for the inhospitable months ahead. With the advent of freezing weather, *Didelphis* becomes less active, sleeping through the day and part of the dark hours in a state bordering hibernation. But the opossum is not a true hibernator. Unlike the woodchuck, its temperature does not appreciably drop, nor is it loathe to venture forth when the pangs of hunger assert themselves. In the northeastern states, the tell-tale tracks of the opossum are often clearly marked on the new fallen snow.

My first glimpse of this peculiar beast was during the severe winter of 1919-20. The marshes and tidal flats near the site of the World's Fair at Flushing, New York, had frozen over during the cruel sub-zero weather, and the muskrats, which I had been trapping, moved into the higher ground. I had placed one of my traps in a burrow beneath a venerable willow tree in a cemetery, in the hope of catching one of these fur-bearers, for at that

*The only animal in North America to raise its young in a pouch is spreading northward, to provide an interesting object of observation for the nature lover*

time their pelts were fetching fabulous prices. Imagine my surprise, on visiting my trap the following morning, to find an opossum in the trap. In spite of the arctic weather, it was very much alive, and showed no intention of playing "possum."

This manner of feigning death has made the opossum famous. Falling on its side, it lies quite motionless until shaken by the hunter or his mongrel cur. Then only will it utter a low hiss or grunt.

Countless myths have arisen in regard to the mode of reproduction, for the peculiar structure of the reproductive organs and the occurrence of the abortive young in the pouch have given rise to many superstitious notions. The breeding behavior and development of the young have been carefully studied by Professor Carl Hartman, and thanks to his long and minute observations, we now know the breeding habits of *Didelphis* as well as our other common mammals.

After mating, the embroyonic young develop within the uterus for eleven to thirteen days. During this period they are not provided with the complete equipment for receiving nourishment from the mother that most other mammals have. But the membrane known as the chorion surrounding the embryo functions in this way instead of the more highly developed placenta.

This apparently is sufficient for the few days of life in the mother's body. At the end of this period, the young, appearing like living abortions, climb out and make their way "hand over hand" through a maze of hair to the opening of the pouch. Into this they crawl and grasp a nipple. So firmly do they become attached that it is well-nigh impossible to remove them. Some years ago, while collecting mammals in Costa Rica, I caught a large opossum whose pouch contained a squirming mass of young, perhaps an inch and a half long. Even by pulling forcefully I was unable to dislodge them from the teats and finally had to anesthetize the parent to remove one or two for specimens.

At birth the young are so small that it would take 23 to equal the weight of a penny. They remain in the haven of the pouch for two months, nourished only by their mother. They may number 16 to 20 at birth, though there are but thirteen teats in the pouch. Thus the last to arrive are doomed to starvation.

After this long "incubatory" period, the young, now well furred and the size of large mice, commence to explore the outside world. They first clamber to the back of the mother, grasping her loose fur with their strong fingers and toes, and ride with her on her nocturnal journeys. Not until they are nearly three months old are they weaned. When they are the size of small rats, they leave their carriage, but remain together in loose-knit family ties for another month. In our northern states, probably a single litter is the rule, although the female is quite capable of producing two litters in a season.

**An adult opossum may weigh from three to seven pounds, but its offspring is smaller than a honey bee. The young are born in a most immature condition, but their fore limbs are relatively well formed. These enable the tiny creatures to climb hand over hand through a maze of hair to the pouch and firmly grasp a nipple.**

The opossum is an important animal to the fur trade. It ranks about eighth in value to the trapper, not because of the price that the pelt fetches, but rather because of its enormous numbers. The animal is used in a number of ways. Large quantities were formerly exported to Europe, where the pelt was dyed to simulate skunk. In this country the better northern hides are made into jackets and coats, but the chief use is in trimmings for inexpensive garments. During times of affluence, the best pelts have brought as much as two dollars, but in recent years 30 to 50 cents has been the top. Indeed, some New Jersey trappers received more for the carcass during 1939 than they did for the pelt.

Its northern migration should bring delight to the hunters, trappers, and particularly nature lovers, for here we find a most adaptable creature, endowed both with economic importance and most unusual habits.

**(Below, right) In the pouch the two-day-old youngster shows little resemblance to the furry creature it will become.**

**The opossum is about the size of a house cat, but it has only a little over one-fifth as much brain capacity. In spite of this small amount of "gray matter," the opossum is not only holding its own in North America but is actually extending its range.**

# What Grouse Eat During the Hunting Season

*By Helen V. Merritts*

**Drawings by Earl Poole**

[1] Paper No. 36 from the Pennsylvania Cooperative Wildlife Research Unit. Fish and Wildlife Service (U. S. Department of The Interior), The Pennsylvania State College, Pennsylvania Game Commission and American Wildlife Institute cooperating. Authorized for publication on September 11, 1942 as Paper No. 1124 in the journal series of the Pennsylvania Agricultural Experiment Station.

[2] Graduate Assistant.

THE Eastern Ruffed Grouse *(Bonasa umbellus umbellus)* is one of Pennsylvania's most popular game birds. This bird, unlike the Ringnecked Pheasant *(Phasianus colchicus torquatus)*, prefers the seclusion afforded by the woods rather than the open fields and agricultural lands. For this reason the grouse is not so well known to the general public as the ringneck, but it is very well known to thousands of sportsmen.

The food habits of the ruffed grouse reflect its environment directly, its fall food consisting mainly of twigs, buds, leaves, and seeds of trees and shrubs. This report on a food habit study of the bird was made from an analysis of 112 crops sent to the Pennsylvania Cooperative Wildlife Research Unit at The Pennsylvania State College from 29 counties in Pennsylvania during 1940 (Table 1). The analysis was carried on under the supervision of Dr. Logan J. Bennett, Biologist, U. S. Fish and Wildlife Service; and Dr. P. F. English, Associate Professor of Wildlife Management, The Pennsylvania State College. Because the majority of the crops used for this study were collected during the hunting season, November 1 to 29, this is a study of the November foods of the grouse. The crops were sent in by game protectors, sportsmen, and other cooperators.

The method of crop analysis has been described by Bennett and English (1938).

### Results of Analysis for 1940

There were 42 known species of plant material found in 112 crops collected in 1940. Twigs, buds, seeds, or leaves were the parts of the plants utilized by grouse. Insects did not form an important item in the diet of grouse, as shown by Table 2. They occurred only six times as a very small percentage of the total volume.

One striking fact was the high percentage and occurrence of unidentified material. Most of these items were leaves which were in such small fragments that identification was difficult. The most preferred food of grouse in 1940 was birch *(Betula* spp.), buds and twigs being the parts of this plant utilized. Birch occurred 22 times as 3.68 per cent of the total volume consumed. The next five preferences based on times occurring were staghorn sumac *(Rhus typhina)*, aspen *(Populus* spp.), blueberry *(Vaccinium* spp.), mountain laurel *(Kalmia latifolia)*, and greenbrier *(Smilax* spp.) (Table 2).

The six most important foods could likewise be based on the percentage of the total volume consumed. However, a direct correlation between times occurring and per cent volume was not possible because some species occurred in such small quantities as to make measuring difficult. Thus, the per cent volume would be low, even though the occurrence was high. Also, one or two crops sometimes consisted almost wholly of one species, which would raise the per cent volume of that species above that of another plant that might occur many times in small quantities.

### Correlation with Other Analyses

Kuhn (1940 and 1941) analyzed 230 crops from 1938 and 207 crops from 1939. From these analyses he found that cherry *(Prunus* spp.), sheep sorrel *(Rumex acetosella)*, oak *(Quercus* spp.), aspen *(Populus* spp.), and apple *(Pyrus* spp.) were the five preferred foods for the fall of 1938. In the 1939 crops he found the five preferred foods to be aspen, grape *(Vitis* spp.), hawthorn *(Crataegus* spp.), sheep sorrel, and oak. This listing of preferred foods was based on a per cent volume method.

However, in comparing Kuhn's findings with the results of the present analysis, it is necessary to base the five food preferences for 1938 and 1939 on frequency of occurrence, since the five food preferences in the 1940 crops were based on this method. Here we get a slightly different picture on the fall food preferences of grouse. In 1938 sheep sorrel was first and bramble *(Rubus* spp.) next; then foamflower *(Tiarella cordifolia)*, cherry, and fern followed in the order named. In 1939 the order was fern first, then bramble, sheep sorrel, cherry, and grass (Gramineae).

In a study made by Nelson, Clarke, and Bailey (1938) on the food habits of the

*(Continued on page 28)*

# The Panther in Pennsylvania

By
Col. Henry W. Shoemaker*

Editor's Note:
We have had no authenticated reports on the panther for over 30 years although our officers have checked many of them. Most of the animals heard have been bobcats. Present-day folks could easily assume that the cries heard were those of the cougar, but in reality they were only those of the wildcat. By publishing the following old report it is hoped that some of the old timers still living can contribute more information.

Photos by C. Gordon Krieble

**Cougar (Panther) or Mountain Lion**

Pennsylvania-bred General Eisenhower's invasion of Africa, the land of the Lions, draws attention to a letter sent to Leo A. Luttringer, Jr., Chief of the Division of Public Information in the Game Commission by Charles R. Lobs, Jr., a Germantown naturalist and historian, who says: "Upon being involved in a recent controversy as to whether or not a certain species of animal is known to be extinct in this State, I wondered if you could submit some form of proof if in recent years there has been any records of lions (mountain lions) puma, cougar, panther, etc., having been taken in this State."

On the basis of official documentation, the last panther killed in Pennsylvania, on which bounty was paid, was killed by John Lucas, in the Moshannon region of Centre County, in 1886. This writer has talked with a son of the hunter, who was closely related to Mayor Robert Lucas, of Clearfield. In the absence of other records the writer will append a list taken from his notes, one item to the year, of reports or records of panthers seen or taken in Pennsylvania, from the present year, back sixty years, to 1882, beyond which date there are few living who have much personal knowledge. During years when he had several stories available he used what seemed to him the most interesting.

As goes the saying "Fifty Million Frenchmen can't be wrong," the weight of evidence weighs heavily that felis cougar, the king of Pennsylvania beasts, has been here, and probably still passes through, on his old migration paths, in Gov, James' fair Commonwealth. 1942. Huckleberry pickers, in Seven Mountains, hear roar of panther at night, animal which breaks down brush comes close to them at Big Spring in Poe Valley, Centre County. 1941. Panther seen near old Herlacher place on "summer side" of Sugar Valley, Clinton County, by huckleberry pickers. 1940. The tracks of a panther noted in sand, near old panther rocks in New Lancaster Valley, where years ago a panther and a black bear fought to the death. 1939.

**Wildcat**

* State Archivist and Author of "The Pennsylvania Lion or Panther."

Child in New Lancaster Valley tells of seeing a great long-tailed animal, "as big as a circus lion." 1938. Trout fishermen see tracks of a panther near head of Lick Run, Clinton County, about ten miles northwest of where seen by Woolrich mail-carrier. 1937. Mail-carrier at Woolrich, Clinton County, sees a panther several times, on rocks in Chatham's Run Gap. 1936. Photograph of casts of a panther's feet made in Tioga County appears in Williamsport *Grit*. 1935. A panther's roar often heard on the West Branch of Pine Creek in the big pines near Ansonia, Tioga County, tracks noted, cattle much agitated. 1934. Mail-carrier sees panther in Chatham's Run Gap, high up on the rocks, moving rapidly, described it accurately to this writer. 1933. Williamsport newspapers report panther seen in various parts of Northern Lycoming County, principally in Steam Valley. 1932. Motorists see panther crossing road in Northern Tioga County. 1931.

A panther is heard on Zimmerman's Run, Tioga County, and eel weirs wrecked by a large animal. 1930. Bear hunters' dogs on Otter Run, Lycoming County return to their masters' after being put on tracks of an animal which made tracks like a panther. 1929. Lycoming County hunter, on Brown's Run, comes upon a sleeping panther but getting a bad case of harsh-fever, goes in opposite direction, (name withheld). 1928. Game Wardens at State Camp, Clinton County, investigate reports of panthers back in their old haunts at the Big Rocks. 1927. Panther said to be worrying cattle in Scootac Valley, Clinton County, on Queen of Spain's old domain: A calf comes home with some bloody slashes on haunches, etc. 1926. Panther seen by shack-dwellers on Auman's Ridge, Fulton County, at close range. 1925.

John Shore's barn, Burnt Cabins, Fulton County, visited by panther, ostensibly to get deer, hanging on rafters. 1924. Panther, at Wehrle Cabin, becomes entangled in a roll of garden wire, and hurriedly leaves the neighborhood. 1923. Panther again is noted by various persons in vicinity of Wehrle Cabin. 1922. Panther makes its headquarters for several days back of spring, near Wehrle Cabin. 1921. Panther's tracks noted near the Wehrle Cabin, at foot of Panther Knob, Blair County. Described by Dr. Wehrle, Sr., and his son Major Wehrle, Jr. 1920. Panther heard at night by caretakers of Old Allegheny Hunting Club, on Swift Run, Centre County; tracks seen by Roy Yothers and companions. 1919. Roy Yothers meets panther at old log fence, back of Pine Glen Post Office, Centre County, fires at animal, and thinks he hit and wounded it. 1918.

Roy Yothers encounters large panther several times on Swift Run, while berry picking. 1917. R. B. Long's woodcutters see panther in snow at head of Bob's Creek, on Blair-Cambria County Line. 1916. John Bassinger, lumbering on North Mountains, says panther tracks in forest north of Eaglesmere, during a late snow in bark season. 1915. Lewisburg *Journal* tells of a panther killed by deer hunters on Paddy Mountain. 1914. A stray panther is said to be disturbing the deer on Paddy Mountain. 1913. R. B. Strayer sees panther in Barrens on Blair-Cambria County line. 1912. Fayette County newspapers tell of panther seen on Laurel Hill by a number of reliable persons; it is supposed to have come from West Virginia. A hunt will be organized. 1911. W. R. Fleming, hunter, of Snow Shoe,

*(Continued on page 28)*

**In the above photograph submitted by Game Protector Hugh E. Baker, Wellsboro, is the hunting and fishing paraphernalia that belonged to Nessmuk. Most of it is on display in the Bailey Hotel in that town. Among the items are his canteen, powder horns, mess kit, candle snuffer, engraved fish pole presented by Forest and Stream, leather shot and bullet pouches, bullet mold and pack basket.**

# NESSMUK—

## Nature's Own

*By Mazie Sears Bodine*

***By Special Permission***
***The Wellsboro, Pa., Gazette***

*Mazie Sears Bodine, a descendant of this almost legendary figure, takes us behind the scenes in the Life and Times of George W. Sears, pioneer sportsman, nature lover and poet, who took his name "Nessmuk" from the "Injuns," and who has contributed much to the historical lore of our section.*

IN TELLING SOMETHING about the life of anyone, we usually begin by stating when and where he or she was born. As Nessmuk's own account of this event is unique and very interesting, I will quote from "Forest Rune," his book of poems.

He says: "I wasn't born in any town whatever, but in what New Englanders call a 'gore,' a triangular strip of land that gets left out somehow when the towns are surveyed. They reckon it in, however, when it comes to taxes; but it rather gets left on schools. This startling event happened in the South Gore, in a sterile part of sterile Massachusetts, on the border of Douglas Woods, within half a mile of Nepmug Pond, and within three miles of Junkamaug Lake. I did not have a fair average start in life at first. A snuffy old nurse who was present at my birth was fond of telling me in after years a legend like this, 'Ga-a-rge, you on'y weighed fo' pounds when you waz born, 'n, we put ye into a quart mug 'n' turned a sasser over ye'. I could have killed her, but I didn't. Though I was glad when she died, and assisted at her funeral with immense satisfaction."

Near this South Gore a remnant of Indians had a reservation. Nessmuk, which means in the Narragansett tongue Wooddrake, was the name of an athletic young brave who, our Nessmuk says: "Was wont to steal me away from home before I was five years old, and carry me around Nepmug and Junkamaug lakes day after day, until I imbibed much of his woodcraft and all his lore of forest life. At first these excursions were not fairly concluded without a final settlement at home, said settlement consisting of a head-raking with a fine-toothed comb that left my scalp raw, and a subsequent interview, of a private nature, with 'Par' behind the barn, at which a yearling apple tree sprout was always a leading factor.

"But gradually they came to understand that I was, as maiden aunt of the old school put it, "given over," and so that I did not run away from school, I was allowed to run with "them dirty Injuns," as the aunt aforesaid expressed it. But I did run away from school and books of a dry sort, to study the great book of Nature. Did I lose by it? I cannot tell, even now. But I sometimes ask myself, did the strong healthy magnetic nature of that Indian pass into my boyish life, as I rode on his powerful shoulders, or slept in his strong arms beneath the soft whispering pines of Douglas Woods?

"And this is how I happen to write over the name by which he was known among his people, and the reason why a favorite dog or canoe is quite likely to be called Nessmuk."

The *Forest and Stream* magazine for June 26, 1890, printed this item:

"The Webster, Mass. *Times* records the death, at the age of 88, of Miss Mary Jaha, the last member of the once great tribe of Nipmuks. The Nipmuks were the Indians celebrated by "Nessmuk" and among whom he first imbibed that taste for a woods life which became his lifelong passion. It is a curious and striking commentary upon possible far-reaching influence of even the humblest individual, that thousands of readers of a journal of today should have owed the pleasure found in the writings of one of its contributors to the chance impress upon his character of an illiterate woodshunting Indian in the forests of Massachusetts more than half a century ago."

At the age of 16 Nessmuk shipped on board a whaling vessel in search of adventure, he was unable to stand the hardships of a sailor's life and soon fell sick. He was put off on the island of Fayal, one of the Azores, off the coast of Portugual. Here, for months, he lay sick of a fever, until he recovered sufficiently to be sent home by the American Consul.

Not long after this the family moved to Brockport, N. Y. and then on to Wellsboro. I could not find the exact date, but it was about 100 years ago. Peter Shumway, one of the first settlers on Shumway Hill and for whom the hill was named, was my great-grandmother's brother. And when my father, Charles W. Sears, and his brother, George were small boys, they often heard their father and mother talking about Uncle Peter Shumway who had gone to Pennsylvania and settled near a small village called Wellsboro. They also said that sometime they might go out where Uncle Peter was. He had written that there was good hunting and fishing in the vicinity and the county offered many opportunities for settlers. So this is how my father's family came to know about and finally move to Wellsboro.

There were eight children, five boys and three girls. Nessmuk was the oldest and my father next. These two were always very near and dear to each other. Grandfather Sears was a shoemaker, and taught all his sons the same trade. In those early days this meant not only the mending of shoes but also the making of them. Boots, which most of the men wore at that time, were a specialty of the trade. I can remember about my father and his brothers making boots for the older men who did not like to change their style of foot-wear.

All the brothers loved the woods and the ways of Mother Nature. My father did not care so much for hunting but he loved to fish, and went on what was to be his last fishing trip, only about two weeks before his death, which occurred on June 11, 1887.

Grandmother Sears was a great reader and loved good books. As long as she lived her mind was alert, she read the papers, kept up with the events of the day and could talk very intelligently on many subjects. She taught her children to follow in her footsteps,

and it was her influence which inspired their love of reading books of worth. The older children were self-educated as they never had the advantages of much schooling. My father and his brother, George especially liked poetry, and early in life George fell into the habit of putting his thoughts into verse.

They all were, as we say, "full of fun." How they did enjoy playing jokes on each other! Many of Nessmuk's writings are full of a dry humor. You will have noticed this in his account of his birth. They all had nick-names; my father was "The Deacon," George was called "Bacchus," Edwin was the "Doc" and Henry was "Pinky." I have forgotten the nick-names given to Loren, and to the oldest girl, Delia, but Hannah was "Peg" and Ellen was called "Snip."

George was known to all his relatives and friends as Bacchus. He was always Uncle Bacchus to me. My father was, for many years, proprietor of a shoe store in Wellsboro. In the back part of this store he and his brothers had their cobbling benches. I can remember standing by the benches, when a very small child, and watching them work. Uncle Bacchus also had a work bench in his own home on Central avenue. This house sat far back from the street, near where Morris Creek crosses the avenue. A few years ago it was moved down nearer the street and remodeled into a very nice dwelling. Harry Robbins now owns and lives in this house.

When the war between the states broke out, Nessmuk enlisted in Company I of the old Bucktails and served from April to August, when he was discharged on account of a sprained foot. His brothers Edwin and Henry, also enlisted in the army. Edwin was captured by Confederate forces and died in a southern prison. Henry received an honorable discharge. As he never married and therefore had no immediate family to care for him in his last days, he finally entered the Bath Soldiers' Home, where he died.

During his life, Nessmuk spent much time in the Adirondack mountains, in Minnesota, Florida and Brazil.

He contributed to *Porter's Spirit of the Times,* a leading sporting journal, published in New York City. I love the title of this old magazine—"*Porter's Spirit of the Times.* A Chronicle of the Turf, Field Sports, Literature, and the Stage." and inside the paper, heading the editorials—"*Porter's Spirit of the Times,* the American Gentlemen's Newspaper." It has been my privilege to see a bound copy of these papers for the year 1860. They contain a series of articles by Nessmuk called "Hemlock Sketches." They are very interesting, being descriptive of the country and stories of camping, fishing and hunting trips, told as only Nessmuk could tell them. I simply must quote from one—"we come to what looks like a thick brake of low laurel; it is not, however, but a thick border of laurel encircling an immense rock. I part the laurel and stepping through, bid my companion to follow and admire. We are on 'Painter Rock,' the most enchanting spot in all the region round about, and, as a specimen of landscape planting, not excelled by anything I have even seen, at least on so small a scale. The rock is an irregular oblong square about 100 feet in length by 80 feet in breadth, has a gentle descent to the south west, and is very slightly oval; it is surrounded on every side by a thick mass of laurel, is nearly covered with moss and lichens and would without farther addition, be exceedingly interesting, and even romantic. It happens however, that the whole surface is divided into little squares and compartments by dense hedges of dwarf hemlock, appearing at first glance, to have no other root than the surface of the rock. On close examination, these beautiful little pyramidal evergreens are found to be firmly rooted in fissures and cracks, which cross and intersect each other with considerable regularity, giving an air of romantic beauty." This rock is on the steep hillside in the vicinity of Texas. But the growth of hemlocks, laurel and mosses that made it so interesting has probably greatly changed in the last 82 years. Even so, I wish I might visit the spot.

The *Spirit of the Times* also printed this same year, a serial story by Nessmuk entitled "Life Notes of an Old Hunter." Many of Nessmuk's friends thought this was his own life history, but he says it is the story of the life of an old forest ranger, as he told it to Nessmuk during a long winter hunt in the North. Personally, I do not think it as interesting as the Hemlock Sketches. Nessmuk also wrote articles for *Forest and Stream, Outing, American Angler* and other sporting journals.

His little book *Woodcraft,* is dedicated to the "Grand Army of Outers," as a pocket volume of reference on woodcraft.

I mentioned before about his book of poems—*Forest Runes. John o' the Smithy* is considered his best poetical work, and was published in the *Atlantic Monthly* when James Russell Lowell was editor of that magazine.

Among Nessmuk's papers is a letter from James Whitcomb Riley, who wrote and published an ode to "Nessmuk."

In 1871 George Sears was employed as a writer upon the *Wellsboro Agitator.* But the close application to work was distasteful to him, and he resumed his old trade, taking long outings every summer. His son, Charles R. Sears, wrote to one of his father's admirers—"My father loved the flag and nature. He loved music and played the violin. He loved dogs and owned some famous deer dogs when it was legal. One of them, Old Nigger, followed an old buck from the Pine Creek region clear to St. Mary's (70 miles), and was recognized and returned to him by rail to Tioga and from there by stage to Wellsboro. (Right here I want to tell you that there is a poem in *Forest Runes,* called "My Hound." It is about this same "Old Nigger").

"At the time the Michigan and Southern Railroad was building he had a contract to furnish meat for the camps. He employed Chippewas to help him and used them so fair that they made him an honorary member of the tribe and elected him sub-chief."

We are told and can well believe, that there were a great many interesting incidents in the life of Nessmuk. One is deserving of mention. He paddled his canoe down the Hudson River to New York, made a landing, carried it and his "duffle" to Central Park, pitched his tent on the shore of an artificial lake and went into camp, just for the fun of it. He was promptly arrested by the park guards, who were amazed and interested in his outfit. When he was taken before a magistrate and the matter explained, the Judge was only too glad to let him go. His canoe the "Sairy Gamp," which he used in a voyage of 550 miles alone in the Adirondacks in 1880, was part of the *Forest and Stream* exhibit at the Columbian Exposition in Chicago, and was turned over to the Smithsonian Institution in Washington, where it still may be seen properly labeled among the exhibits.

Many different organizations have been named in honor of Nessmuk, among them "Nessmuk Circle" of Boy Scout Troop No. 12, of Wilkes-Barre. A sportsman's club in Worcester, Mass., called "The Nessmuks." The men of this club knew Nessmuk only

*(Continued on page 29)*

**Mt. Nessmuk and its reflection in the still waters of Marsh Creek.**

**Pine Creek, below Blackwells.**

Beaver Repairing Dam

*Photo by Deck Lane*

# Beaver Dams and Wildlife

THE beaver (Castor canadensis) is a most remarkable animal. Its engineering abilities, the construction of dams, houses, and intricate systems of canals—have long been made a matter of popular knowledge. The part which the animal has played in the exploration and development of the North American continent; its great importance as a fur-bearer, and its economic contribution during the pioneer days of another century have been made famous through countless legends and historical accounts. More recently we have been learning about the beaver as a conservator of soil and water. We are told how the beavers, all through the centuries, have been building their dams to impound the waters and how these old dams have literally built up lush and fertile meadows in many of the stream valleys of America. Today the United States Soil Conservation Service is actually employing these animals in their fight to control the arch enemy of the land, soil erosion.

In earlier days beavers plied their trade throughout most of the State of Pennsylvania but by the middle of the last century they had already been virtually exterminated within its boundaries. Local names such as Beaver Brook, Beaver Creek, Beaverdale, Beaver Falls, and Beaver Meadows perpetuated its memory and suggest, at least, that they once flourished in those areas. One of our counties in the western end of the State took the name of the animal as its own, undoubtedly commemorating its former abundance there. In 1917 the Pennsylvania Game Commission began to restock the animals and they were remarkably successful. Today the beaver has been reestablished throughout most of the Commonwealth. Beaver dams have reappeared in localities where they have been unknown for more than a century and now most of us do not have to travel very far from home actually to see the work of these animal engineers.

In Northwestern Pennsylvania there are a number of active beaver colonies and the animals are steadily increasing. Every year there are complaints about beaver damage, much of it undoubtedly substantiated, such as the flooding of cultivated fields, valuable pasture lands, and roads, but in some cases these claims of damage are greatly over exaggerated. Low-lying, wet, semi-swampy brush lands covered with aspen and alder thickets seem to be most frequently sought by the beavers as sites for their dams and such lands are certainly not of much value for crops or even for pasture. In such areas, the improvements brought about by the activity of the beavers should prove to be an asset rather than a liability for the environment thus created is favorable to the production of a variety of valuable forms of wildlife including waterfowl and the muskrat.

Let us delve into some of the ecological aspects of a beaver dam. This particular dam was constructed along one of the small, sluggish, swampy-bordered streams in Crawford County. It flowed through a rather broad, flat valley, a large portion of which was covered with willow, redosier, and other swamp shrubs. On the higher knolls the growth was, for the most part, aspen, sumach, and blackberry briars. The larger trees, which were very much scattered, were principally American elm. Some parts of the area were covered with a growth of sedges, rushes, and a scattering of cattail in the wetter pockets. Such an area is of very little value from an agricultural standpoint and its possibilities from the wildlife standpoint are distinctly limited. Muskrats will be found along the stream and an occasional bittern or mallard may nest in the patches of marsh vegetation. During the periods of drought, however, the water table in such an area is often lowered to such an extent that the marshy portions dry up and often the small streams become dry during the summer months.

After the beavers constructed their dam the water was backed up over most of the low land, converting it into a shallow water area of considerable extent. Eventually the scattered growth of trees and many of the shrubs were "drowned out" and died, leaving their bleaching skeletons to stand above the surface of the beaver pond. The aspen growth about the shore and on the surrounding low knolls has been, and is still being, cut and utilized by the beavers, the bark as food and the limbs and smaller trunks as construction material for the dam and the beaver house. In the course of a few years aquatic plants became established in the pond. Out in the deeper water, along the old channel, there is now a zone of the spatter-dock (Nuphar advena). Submersed aquatics such as the water-weed (Anacharis canadensis) and the coon-tail (Ceratophyllum demersum), as well as several species of pondweeds (Potamogeton), have become well established, probably having extended their territory from original growths in the old stream channel. In the shallower water near the shore the great bur-reed (Sparganium eurycarpum) has become well established and there are now growths of cattail (Typha latifolia) and sedges (Scirpus) and other semi-aquatic plants. In the course of time these plants will extend their territories and the area will become a highly desirable marsh habitat.

During the past summer I have repeatedly visited the above mentioned beaver pond and its marshy borders. It abounds with wildlife. Even from afar, of a summer's evening, one could hear myriad voices: gallinules and grebes, rails and redwings, bullfrogs and bitterns. Black terns wheeled gracefully overhead, skimming up and down over the pond and they protested vociferously the intrusion upon their domain. A least bittern flushed from the rank growth of bur-reed. Long-billed marsh wrens chattered indignantly from the screen of marsh vegetation. Out among the spatterdocks a mother gallinule nervously hastened her brood of eight downy young into concealment. Ever-widening V-shaped ripples marked the courses of muskrats going to and from their feeding grounds along the shores. Off in the distance could be heard that peculiar stake-driving call of an American bittern which seems to be the very soul of the marshlands itself.

I don't believe that I ever saw gallinules so numerous, during the breeding season, as I saw them on this beaver-created pond last summer and most of them had broods of young. They seemed to lurk everywhere in the growths of bur-reed and out among the beds of spatterdock. Their calls could be heard incessantly during the summer

*By William C. Grimm*

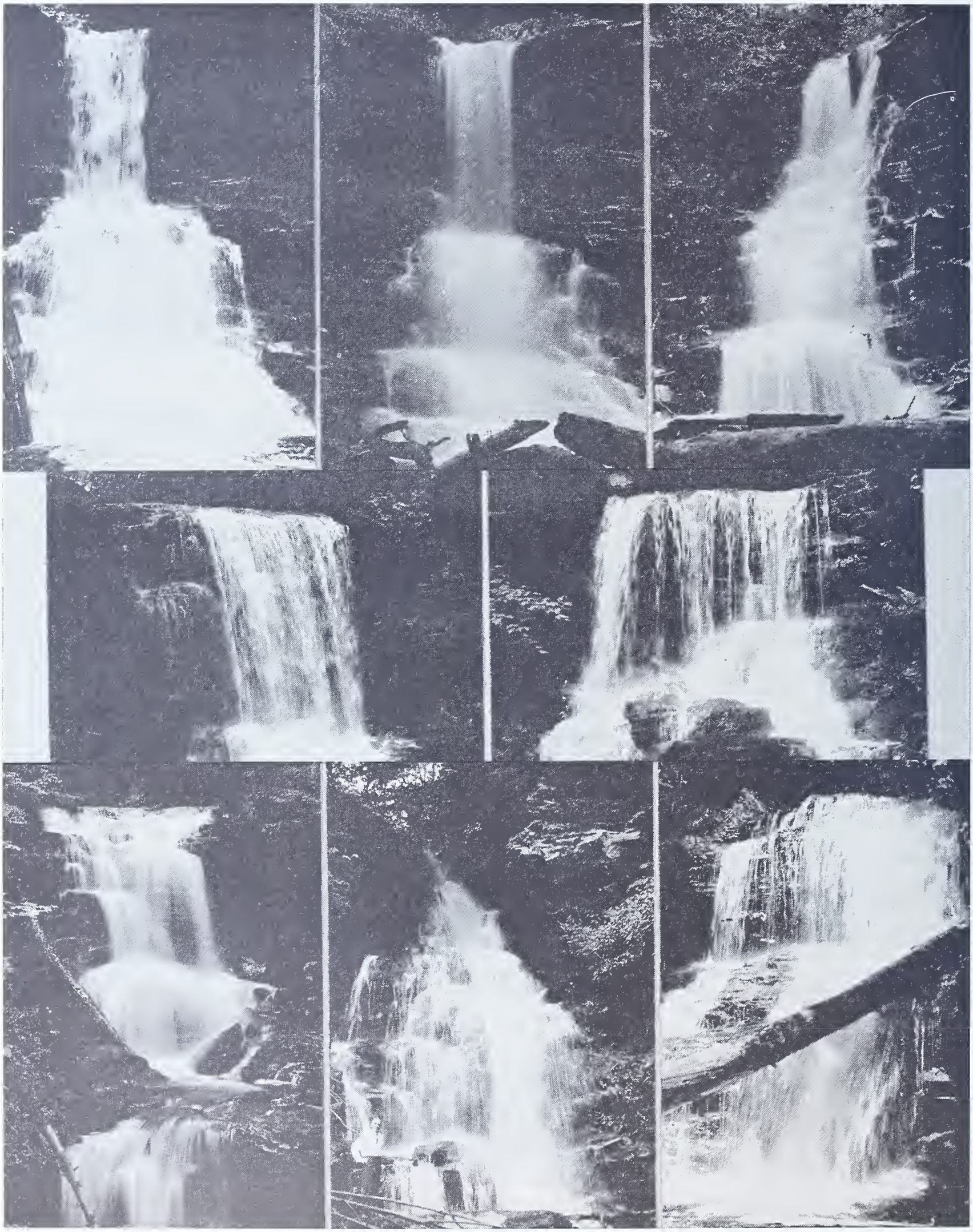
months. On every visit, too, I saw one or more pairs of blue-winged teal and later saw a couple of them with good-sized broods. Mallards were another constant feature and wood ducks were prone to consider it as a favorite resort. Virginia rails and least bitterns were frequently found in the marsh vegetation and several pairs of pied-billed grebes lived in the area. The black terns were present all summer and I am certain, by their actions, that they bred somewhere in the marshy area. Throughout the summer tree swallows were always seen in abundance and they undoubtedly nested in the dead trees standing out in the flooded area. During the fall migration hordes of these swallows together with bank, barn, and cliff swallows roost in the skeletons of the drowned trees. I frequently saw downy woodpeckers working among these trees and often flocks of cedar waxwings frequented them. Red-winged blackbirds thronged in the thickets bordering the pond and swamp sparrows and long-billed marsh wrens seemed to be almost everywhere about the shore. Certainly the beavers had created an area which many species of birds found to their liking and they utilized it apparently to capacity.

During my midsummer visits to the pond I continuously saw evidences of a fair-sized muskrat population. The trails of these mammals were well-marked along the shore and I saw numerous fresh cuttings of bur-reed, cattail, and sedge. By early October the new houses began to appear in some numbers throughout the shallower portions of the pond. This area annually produces good yields of muskrat pelts and it is clearly evident that the beavers have created a muskrat habitat of the first class. Such an area will yield an income, from fur alone, equal to, or greater than, the yield per acre received from much of the local cultivated land. In addition these marsh areas are becoming increasingly more valuable from the standpoint of the sportsmen. Duck hunting is more than an incidental use of the marsh area and the demand seems to be on the increase.

The summer of 1941 was notoriously dry throughout most of Northwestern Pennsylvania. The spring months had been unusually warm and there had been very little of the normal showery weather. By mid-July water levels were very low, even in the marsh areas, and most of the smaller streams were reduced to mere stagnant puddles with long intervening areas of sun-baked sand and pebbles. On July 29th, I went to State Game Lands 101 which lies partly in the northwestern corner of Crawford County and partly in the southwestern corner of Erie County. While I was there Mr. Carlyle Sheldon, a deputy game protector, showed me two beaver dams located on the game lands. From my notes for that date I quote as follows: "the west branch of Conneaut Creek, which flows through the game lands, is dry in many places, water remaining only as puddles in the deeper portions. However, within the game lands, there are two beaver dams which have considerable water backed up behind them in spite of the drought. The usefulness of the beaver as a water conservator is well demonstrated and it is evi-

*(Continued on page 30)*

**The above photographs of beaver dams and houses in Elk and Cameron Counties were taken three or four years ago by T. J. Rice, Oberlin, Ohio, one of the oldest non-resident hunters who comes to Pennsylvania. He is now 89. Pictures were submitted by his friend and companion I. L. Porter, also of Oberlin, who went on to say that the dams were located on the right-hand fork of Whippoorwill Creek. One shows recent cuttings, another a cut-over section with a large house in the background and another, at top, a splendid dam and house.**



**Some of the Waterfalls in Kitchen Creek, Luzerne County**

# Many Waterfalls in Pennsylvania

*By Dr. R. W. Stone*

*Pennsylvania Geological Survey*

WRITING an article about waterfalls in Pennsylvania may be a hazardous undertaking. Ideas may differ as to what constitutes a waterfall. A dictionary defines a waterfall as a cataract, a cascade. A cataract is a great waterfall; a cascade is a small waterfall or series of falls. Who is to judge whether a waterfall is great and to be classed as a cataract? Shall height or volume or both be the criteria? Those who have seen Niagara Falls, 4,000 feet wide and 167 feet high, would class it as a cataract. Likewise Yellowstone Falls is a cataract, for the whole Yellowstone River year in and year out drops 308 feet with a might roar. Multnomah Falls in Oregon is 850 feet high and the upper Yosemite Falls is a straight drop of 1,300 feet, but some years they diminish to a trickle that blows away as mist and never reaches the bottom. Are they cataracts? Well, part of the time.

There are two kinds of waterfalls in Pennsylvania, those in streams diverted by glacial action to a new channel, and those caused by wear-resistant rock in a stream bed, perhaps overlying more easily eroded rock. Our waterfalls are most numerous in the glaciated parts of the State, those parts that once were overridden by an ice sheet more than a thousand feet thick. The northeast and northwest corners have been buried in such ice three times. The material left behind by the melting ice, rock debris called glacial drift, changed the topography or shape of the surface by filling old channels and making new ones. Surface drainage that developed on the newly deposited drift encountered dams across the old channels and sought a new course. In the northeast corner of the State, where waterfalls are most numerous, this resulted in some streams plunging over the escarpment bordering the Delaware and making numerous cascades and waterfalls.

That these waterfalls are post-glacial in age is well assured. It is impossible that the large volume of water passing over some of the falls could have done so for hundreds of thousands of years without cutting the channels down to a low grade that eliminated the falls. Their very presence indicates the youth of the streams. That these streams descended from the plateau to the river in deep-cut graded channels in pre-glacial time is proven by the presence of drift-filled valleys aligned with the present headwaters. Furthermore, the drift-filled valleys have a mere trickle of water in them, and yet are cut down more than 100 feet in the same series of rocks over which the adjacent streams are tumbling. It is impossible that the weak little streams could have cut the deep wide valleys in which they flow.

### Bushkill and Sawkill

The Bushkill and the Sawkill, for example, were turned to their present courses on the retreat of the glacier about 25,000 years ago and have cut their narrow ravines in that time. In pre-glacial time they flowed for untold ages in broad graded valleys through the escarpment, valleys such as they will cut again, given time enough.

Waterfalls occur also where a main channel has been over-deepened by glacial action and its tributaries fail to meet at grade. Such occurrences commonly are cascades rather than falls, but if a massive rock makes a ledge along such a main channel, there may be true falls also, as along Beaver River. Falls occur also where some rock over which a stream is flowing is so resistant to erosion that softer rock below it wears away, making a step, ledge, or declivity and so a waterfall. A good example is Cucumber Fall near Ohiopyle. Another type of fall is that occasioned by a stream encountering a thick, massive rock, with vertical joints. If the rock beds are several feet thick, true falls will develop while the stream is still working in the resistant material. Ohiopyle Falls in Youghiogheny River is an example.

**HUNTERS! Please Report Your Game Kill. The Deadline Was Jan. 16**

### Highest Falls in State

The highest falls in the State are:

Bushkill Falls, Pike Co., 125 feet, two leaps 75 and 50 feet.

Dingman High Falls, Pike Co., 130 feet, one leap 100 feet.

Indian Ladder Falls, Pike Co., 102 feet in 150 yards.

Levis Falls, Monroe Co., 118 feet, one leap 90 feet.

Raymond Kill Falls, Pike Co., 125 feet, two leaps 80 and 45 feet.

So much for introduction. Without specifying any minimum height or volume or being too particular about the type, such information as has been assembled is here listed by counties. The following material is from various sources. Quotations are from reports of the Pennsylvania Second Geological Survey that were published 60 or more years ago.

### Beaver County

Beaver Falls in Beaver River at the city of that name was originally a low cascade over massive Homewood sandstone. For many decades a dam has increased the height for power purposes.

Trough Run in Pulaski Township empties into Beaver River between Rochester and New Brighton one mile above the dam. It falls 100 feet in about one mile and cuts a deep, narrow gorge. The stream is frequently interrupted by falls and cascades. It plunges 20 feet over the Kittanning sandstone.

Bennett Run just north of Eastvale in North Sewickley Township also passes over massive conglomeratic sandstone in a series of falls and cascades just before entering Beaver River. Thompson Run and other streams in the vicinity do likewise.

Clarks Run in Big Beaver Township puts into the river at Homewood. Just east of the highway the run passes over massive Homewood sandstone, with a perpendicular fall of 30 feet, and its course below is a series of falls and cascades.

### Carbon County

Glen Onoko discharges a small stream into Lehigh River two miles above Mauch Chunk. This stream descends 800 feet in one mile by a series of picturesque cascades. Other streams in the vicinity cascade similarly into Nesquehoning Creek.

### Fayette County

*Ohiopyle.*—The best-known waterfall in Fayette County is at Ohiopyle on Youghiogheny River. Here the river has cut down into the Homewood sandstone and cascades over the edges of the beds, with a final drop of about 12 feet over a massive ledge. The whole descent is about 20 feet. Half a mile farther downstream Cucumber Run enters the Youghiogheny gorge from the south. At its mouth the stream follows along the upper surface of a massive bed of Homewood sandstone, then makes a straight drop of about 15 feet over the edge, exposing Mercer coal and shale behind the water curtain.

In the gorge of Youghiogheny River from Confluence to Connellsville the bluffs are 500 to 1000 feet high and many small streams descend them, falling and cascading several hundred feet in half a mile or less. Streams heading high up on Chestnut Ridge and Laurel Hill likewise are a series of cascades near their source.

### Lancaster County

The Susquehanna River is narrowed to half a mile between Falmouth and York Haven by a sheet of diabase and associated baked shale. This hard rock makes riffles across the river known as Conewago Falls. A dam above the falls gives a head of 22 feet at a power plant.

### Lawrence County

*Neshannock Falls.*—Six miles north of New Castle and 3½ miles southeast of New Wilmington, Neshannock Creek plunges over the Connoquenessing sandstone, descending 25 feet in a few rods. The narrow gorge is rimmed by cliffs of this conglomerate 75 feet high. The upper slopes are wooded and the scenery naturally is wild.

*Slippery Rock Creek.*—Just north of Rose Point Muddy Creek joins Slippery Rock Creek in its gorge. Coming from the east with gentle grade it encounters the massive

*(Continued on page 29)*

**Wild Turkeys Feeding**

*Photo by Henry Schell*

# Some Economically Important Parasites of the Wild Turkey and Hungarian Partridge of Pennsylvania

*By Everett E. Wehr* and Don R. Coburn***

IN January, 1941, a number of sick Hungarian partridges were received for examination from the Loyalsock State Game Farm near Williamsport, Pa. At necropsy, the crops of these birds were found to be heavily parasitized with a species of hairworm, *Capillaria contorta*. As many as 250 of these worms were removed from the crop of a single bird.

In order to ascertain the extent of the cropworm infection, the writers visited the farm in February, 1941. At that time several birds showed symptoms of weakness, emaciation, droopiness, and diarrhea. An examination of the droppings for *Capillaria* eggs disclosed that a large number of the birds were infected.

Later in February word was received from Mr. Gerstell, Chief, Division of Propagation and Research, Pennsylvania State Game Commission, that a number of wild turkeys on the State Game Farm near Honey Grove, Pa., were sick and unable to keep up with the other birds of the flock. About one week later, when the writers, in company with Dr. J. E. Shillinger, Section on Diseases and Parasites of Wildlife, Fish and Wildlife Service, U. S. Department of Interior, and Mr. Gerstell visited the farm, three of the sick birds were necropsied and each was found to be infected with several species of worms, namely, gapeworms, large intestinal roundworms, tapeworms, gizzard worms, cropworms and a protozoan blood parasite; a bacteriological examination proved to be negative. As the cropworms and the gapeworms were found to be in greater numbers than any of the other species and as both of these parasites are known to be pathogenic, especially when present in large numbers, it is more than probable that these worms contributed chiefly to the sickly condition of the birds.

Since little information is available regarding the internal parasites infecting the wild turkey and other wild game birds, this article is intended chiefly to acquaint the wild game bird breeders and other interested persons with some of the internal parasites occurring in the Hungarian partridge and the wild turkey of the eastern United States as well as with some of the pathological conditions ascribed to the parasites under consideration.

### Protozoan Parasites

A blood parasite, *Leucocytozoon* sp., probably *L. smithi*, was present in small numbers in the blood of each of the wild turkeys examined at Honey Grove, Pa.

In 1938, Johnson and his associates reported a mortality of approximately 30 per cent among young domestic turkeys infected with this parasite in southwestern Virginia during July and August. Birds up to 12 weeks of age appeared to be the most seriously affected. Droopiness, inappetence and a desire to remain squatted on the ground were some of the earlier symptoms shown by the infected birds. In advanced stages of the disease, the birds moved with difficulty when disturbed; they tended to fall over, became comatose and finally died. Noticeable symptoms usually lasted for only two or three days, after which the birds either recovered or died.

Johnson and his co-workers were successful in transmitting leucocytozoon disease from one turkey to another by means of the blackfly, *Simulium nigroparvum*, which is reported to be prevalent in southwestern Virginia. There are, perhaps, other species of simuliid flies involved in the transmission of turkey malaria, as more than one species of these insects have been reported to feed on the blood of turkeys.

Simuliid flies, commonly known as blackflies, sandflies, buffalo-gnats, and turkey-gnats, deposit their tiny, whitish eggs in great numbers on the exposed, preferably wet, surfaces of rocks, grass, brush and debris is shallow, rather swiftly running streams, such as are found in mountainous areas. The larvae attach themselves to the submerged objects by means of silken threads which they secrete.

For the control of leucocytozoon disease in the domestic turkey, Johnson and his associates (1938) recommend the rearing of birds in confinement and the sale of the breeder turkeys as soon as the required number of eggs have been obtained. Such a practice removes the "carrier" birds to the market before the young birds are placed outside. It is also believed that the ranging of the birds (domestic and wild) at a considerable distance from the breeding places of the simuliid fly and the removal from the flock of all visibly sick birds as soon as they are discovered will reduce to a large degree infection among the susceptible birds.

The fact that *Leucocytozoon smithi* has been found in the blood of adult wild turkeys suggests that once these birds are infected they may serve as "carriers" of

* Zoological Div. U. S. Bureau of Animal Industry, Beltsville,, Md.
** U. S. Fish and Wildlife Service, Patuxent Research Center, Bowie, Md.

the parasite. This being true, the domestic turkey should not be reared near the range of the wild turkey.

### Tapeworms

A large number of very small tapeworms, *Raillietina ransomi* (Williams, 1931), were collected from the intestines of the three wild turkeys examined at Honey Grove, Pa. The mature worm is about two centimeters long. The head is well developed, much broader than long, and armed at its base with a double row of approximately 500 small hammer-shaped hooks; the head suckers are unarmed. The genital pores are irregularly alternate and the eggs are not contained in capsules.

The life history of this tapeworm is unknown. However, an intermediate host is probably involved in its transmission from one turkey to another, since all bird tapeworms, of which the life histories are known, require intermediate hosts such as ants, beetles, slugs, snails, flies, etc., as hosts in which to undergo their larval development.

There is no drug treatment which has proved satisfactory for the removal of bird tapeworms. None of the conventional methods of periodic rotation of ranges and yards have been successful in the control of these parasites, since these methods do not in any way control the movements of the intermediate hosts. Insofar as it is practical to do so, the droppings of infected birds should be frequently disposed of in such a manner as not to be accessible to birds, since they serve to infect the intermediate hosts.

## NEMATODES

THE CROPWORM *(Capillaria contorta)*

This threadlike worm has been reported previously from the crops and esophagi of several gallinaceous birds, including the ruffed grouse, bobwhite quail, domestic turkey, ringneck pheasant and the Hungarian partridge. The finding of this parasite in the wild turkey, *Meleagris gallopavo silvestris,* is apparently a new host record for this roundworm.

*Photos by C. Gordon Krieble*

**Hungarian Partridge; also below**

Susceptible birds become infected with this cropworm by swallowing the embryonated eggs with the food and water. When the eggs hatch, the young worms enter the crop wall and cause the latter to become thickened and inflamed. In heavily infected birds, the wall af the crop and sometimes that of the esophagus is uniformly thickened, the mucosa is loosened, macerated, and often reduced to shreds. In such advanced cases of infection, many of the parasites are only partially embedded in the crop lining and are easily removed by grasping the free end of each worm with a pair of tweezers and applying a steady and gentle pull.

Pendulous crops have been prominent features in a few of the birds dying of this parasitic infection. Relaxation of the crop wall due to the parasite invasion resulted in food accumulation which by weight and over-distension caused tearing of the subcutaneous tissues and the displacement of the crop to a ventral position. Two specimens have shown crop distension of 4 to 6½ inches, respectively, with extension ventrally to the posterior border of the sternum. All birds so affected have shown heavy crop worm infection.

Lightly infected birds may show no symptoms. Heavily infected birds, however, become droopy, weak, emaciated and often die. Many deaths among the partridges on the Loyalsock State Game Farm near Williamsport, Pa., were attributed to heavy infections with *Capillaria contorta.*

Owing to the location of the worms within burrows in the crop lining, the possibility of anthelmintics reaching them, without first destroying the crop lining, is unlikely. In lieu of a suitable drug treatment, the control of this parasite is necessarily dependent on practical means of prevention. Such measures as the rearing of birds off the ground in clean wire-floored cages, and the destruction by burning of all dead and infected birds, are indicated. The Loyalsock State Game Farm is now practicing, to a large extent, the rearing of birds off the ground in wire-bottomed cages, and Mr. Gerstell is convinced of the merits of the system. He reported recently that much less trouble with parasites has been encountered since this system of rearing the birds has been adopted.

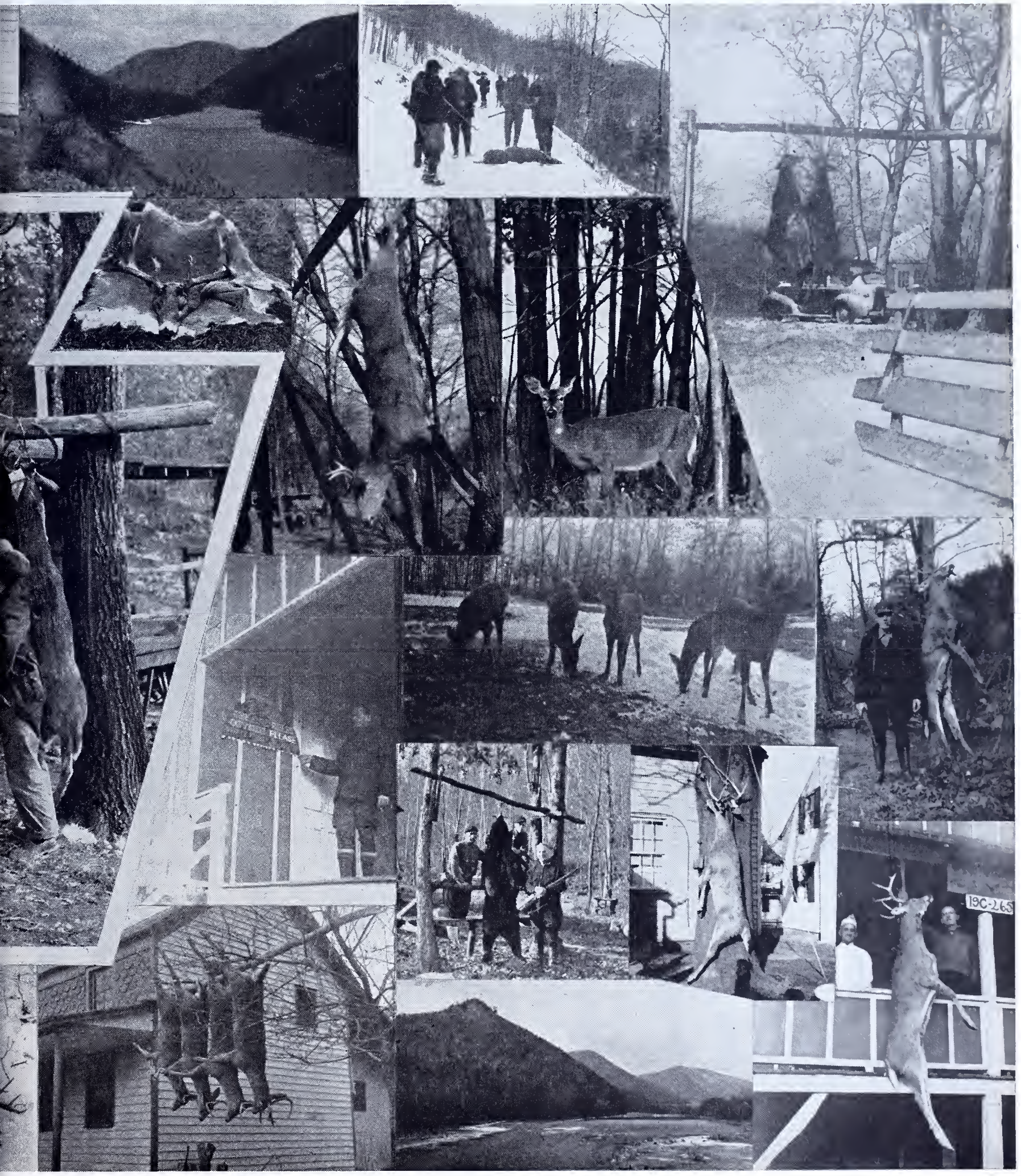
*(Continued on page 31)*

# PICT

# HIGHLIGHTS OF THE 19

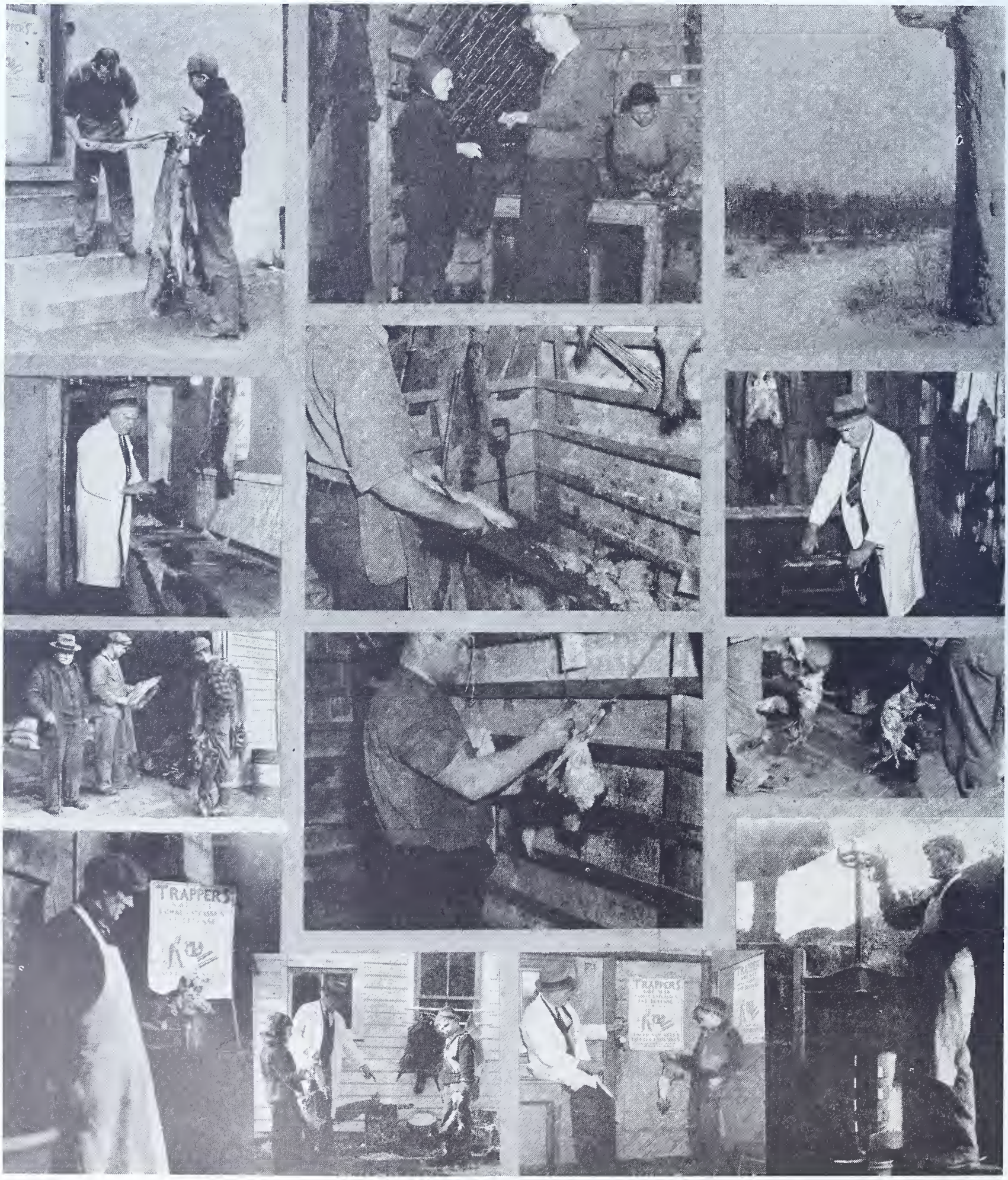
# RIAL

# LARGE GAME SEASON



# Fats for Explosives

**Trappers, Fur Dealers and Rendering Plants have been cooperating in an earnest endeavor to save the fats of fur-bearing animals for making explosives. They jointly deserve a lot of credit for thus helping the war effort, especially since gas rationing made collections difficult in some instances.**



# THE SKUNK

*By T. A. Reynolds*

***Written while a student at the Game Commission Training School***

THE skunk, a member of the weasel family, is strictly a North American animal found in most parts of the United States, and distributed widely over the State of Pennsylvania. He makes his home in, or on, well watered, rolling, agricultural lands where he is usually found in abundance. The home range or the cruising radius is comparatively small, averaging, according to most authorities, about half a mile.

The den is usually located on a well drained hillside though, they are often found under buildings, stone fences and other protected places, dry enough, and close to food and water. Being equipped with four powerful claws on each foot, the skunk can dig his own burrow, or enlarge and remodel the dens of woodchucks.

Mating occurs in February and March, depending on the weather. The females are said to release small amounts of musk during the mating season, and the males engage in combat over them. These battles, however, seem to be limited to the use of tooth and claw. The use of the musk apparently is taboo according to a "gentleman's" agreement.

If on the first heat the female is not mated, a second period occurs some four weeks later. In the wild state the skunk is frequently found to be monogamous, however, the question seems to be debatable. The most successful fur-farming practices ratio three to four females to each male; the latter being rotated from pen to pen during the season. The gestation period is nearly always sixty-three days, or nine full weeks. Litters vary from four to twelve, with an average of six. The female usually produces four young at her first mating, and from six to eight during the second breeding season. There are reports of two broods from a single female during one breeding season, but this is believed to be very rare. The young are born naked and blind, and their greatest enemy at this time is the male parent.

During the coldest weather the skunk enters a period of partial dormancy. This partial hibernation may be interrupted by an occasional warm spell, during which nocturnal wanderings are resumed.

The skunk is armed with an exceedingly powerful weapon—a liquid musk secreted in two large glands under the tail. These glands are located on each side of the anus, with ducts that can be protruded through the rectum for "firing." Each of these sacs contains sufficient fluid for five or six releases. Because of this liquid ammunition, smells like a mixture of strong ammonia, essence of garlic, burning sulphur, sewer gas, vitriol spray, and a dash of perfume musk, the animal is left pretty much alone. In spite of his highly scented and much respected weapon, the skunk is a gentle and inoffensive animal. Like the rattlesnake, he gives notice of his intentions before ojening fire. The lifting and spreading of his tail and the stomping of his feet, are almost always the preliminary signals, and when the tip of his tail is raised and spread anything can happen —and usually does. Its chief enemies are the great horned owl, the dog, and man.

There have been many reports that all skunks are more or less rabid. This theory, however has been more or less disproven. There are many records of men and dogs having been bitten without experiencing anything more serious than the temporary inconvenience of the cut.

Authoritative sources state that the species is remarkably hardy and free from disease. A serious ailment afflicting the animal is a particular worm called *Ascaris columnaris*—a parasite with seemingly no intermediate host whose eggs are laid in the intestines and which, after hatching, pass through the blood stream into the lungs where they develop and later cause pneumonia.

The skunk is classed as a carnivorous animal. He is, however, omniverous and is among the most useful of the native mammals—a most efficient help to both orchardist and farmer in combating insect and rodent pests. A large percentage of his diet consists of noxious bugs, army worms, tobacco worms, white grubs, potato bugs, wasps and their nests, grasshoppers, crickets and bettles and their larvae. Also included are mice, rats, ground squirrels, carrion, fruits, nuts and berries. Only a very small percentage of game mammals or game birds' eggs are eaten.

Dixon found from observations and data—"based upon field experiences of many observers, upon examination of fecal pellets and stomach analysis that 68% of the skunk's food is of beneficial significance; 27% neutral, and only 5% of harmful significance from man's viewpoint."

Herbert L. Stoddard (in his Bobwhite Quail Study) says that the skunk breaks up a large number of quail nests, sixty-five nests, or nearly 11% of the total study having been broken up by the so-called "pole cat."

Dr. Wright in 1929 placed pheasant eggs in skunk runways to determine whether or not the skunk is apt to break up the pheasant nests. None of these eggs were eaten; in fact some were rolled carefully from the path.

Dr. Pirnie (in his "Michigan Waterfowl Management," Game Division, Dept. of Conservation 1935) seems to feel that the snapping turtle eggs eaten by the skunk offset the damage he does to nesting waterfowl. Dr. Pirnie says, "that the inter-relations of wild animals to each other and to the activities of mankind are far from simple. When possible, man should let well enough alone."

R. E. Trippensee (in an unpublished manuscript on the cottontail rabbit presented in connection with work for his degree at the University of Michigan) mentioned only one case of damage to the rabbit that could be definitely attributed to the skunk, and damage to domestic poultry has probably been exaggerated by biased observers. Minks and

*(Continued on page 30)*

# Smoke Over the Poconos

By Jack Anderson

EVERYWHERE about me were long red tongues of fire. They leapt angrily from every limb of tree and every branch of underbrush, crackling a diabolical song of triumph, hissing low and ominous warnings of danger. They raced from tree to tree, lashing out, dying with the cessation of wind, whipping savagely to life again. And with them, moving before them like a phantom with the wind, were the intense heat waves—heat waves so withering hot the very tissues of the lungs were threatened.

I battled on with my burlap sack, smothering the little fires as they appeared among the lower vegetation. I worked like an automaton, lost to all else save my little burlap sack and the determined flames. My face felt like it had been burnt to a crisp. My clothing was in charred tatters. I knew that my work accomplished little, yet I could not stand by idly. The true danger was in the crowns of the trees—fire racing like a mad red snake through the pines. Beautiful, waxen needles exploded in an instant into masses of flame, and in several instants more were black skeletons tipped on the edges with smoldering grey ashes.

But I worked on, knowing not to what end. And so engrossed was I in my labors that I did not hear the first warnings. It was only as I became suddenly conscious of a terrible sensation of heat-strangulation that I backed away, hand over my face, and heard a wild, "Jing! Get out of there! Get the blankety-blank out of there!"

Then I looked about me. On my left and to my front were mad, crackling, hissing conflagrations, sweeping up in flames so thin I could see through them, and leaping high in a center point of fire that licked forty or more feet into the air. From these flames dropped numerous burning branches, striking everywhere about me in a spray of sparks. I lost no time in beating a retreat.

*"Ain't no more fires in the Pocono mountains. Why it used to be full of fires! Weren't nothing up here but scrub, fer a few years! Yes sir, those good old days had everything bigger, I tell you. Why I once saw a fire start right out here that dang near took every town in the Poconos, including Stroudsburg. It was the fire to end fires, was that one!"—Diary of Pocono Old-Timer.*

In fact so great was my haste that I twice stumbled and fell.

I was met eagerly by Hooks Gentry. It was amusing to see Hooks with a worried expression. "Y' all right?"

"I don't know. Am I? Am I on fire?"

Hooks grinned. "Darned fool. Y' weren't doin' any good in there noways. We backfired a little way back and she's in check now."

"Oh. Thank God!"

"Yes, Thank God. Too bad we had to shoot a doe and a fawn in there. Burnt plenty bad. They were caught in there. Must've been scared to get out, smelling us out there. When they did try it, it was too late."

I sat down on a stump for a breather. I reached for my tobacco pouch, then thought of the fire and put it away again. I was about to tell Hooks this was a hell of a way to start a week of grouse hunting when a group of slow-moving mountaineers walked toward us.

They were Pocono mountain men. All were young except one. They were broad, red-faced men with the swing of the trail in their strides. Strength was the immediate impression I had, following their broad frames down to great leg muscles packed tightly in high-top shoes. And on closer inspection, in a study of faces, I read also geniality and humor. This humor was especially noticeable on the old member of the group. It was as if I could see humorous thoughts chasing about the lined and whiskered face.

"Well warden," the old man said to Hooks, "I guess we've earned our twenty-five cents an hour."

"You sure did, Pete. A good job, you boys done!"

"I'll say we did a good job." Old Pete smiled back to the boys. "There'll be plenty of huckleberries and wintergreen and deer around here, too!" He blew a wad of tobacco juice at a moss-covered rock.

Game Warden Hooks Gentry sobered. Now, be it known Hooks is a good-natured man. He is, in fact, of a disposition to be envied. In him, the reasoning man is always uppermost; the animal-man, driven by instinct, sleeps in his depths. But the way he said, "I'd like to meet the arson-minded rattlesnake who set this fire!"—Well, it just made you sit up and take notice. And Hooks had the backing, too. He was six feet four, and staggered the scales at a cool two twenty.

The woodsmen only looked away, or whittled sticks, or kicked at rocks around their feet.

Then Hooks calmed down, and his voice was cool and even. "Well, let's get out of here. The fire warden has his regular boys to see the fire through now." He started out for the road, where his truck was parked.

"We're going by way of the back trail, Hooks," said Old Pete. "We'll see you later."

"All right, Pete."

"Say! You know tomorrow's the turkey shoot. Coming out?"

"Sure, I'll be out. Thanks Pete."

"Bring your friend along, too. A friend of yours is a friend of ours!"

I was doing some guessing. I could not forget Hooks Gentry's serious utterance. And the mountaineers had not questioned him; it was as if they understood.

"I say, Hooks, are you and these mountain boys *really* friendly?"

He smiled. "Of course. Why?"

"Why did you say—"

He stopped me by holding out his hand, palm up. "Come on, Jing. I invited you up to my place to hunt grouse. Don't spoil your own fun."

So I said nothing more. The day following I went into the forest early with my shotgun. I went into the forest in rear of Gentry's house, passing through a large stand of grey birch trees down into a semi-marsh land where only weeds and underbrush grew. The forest was quite still and my feet crackled loudly on the fallen leaves. I was thinking of what a perfect day it was and how good the mountain air felt and how mean the patch of green briars was, and then abruptly a loud whir-r-r! filled the air.

I turned quickly. A brown shadow drummed the air, swooping just under a stand of grey birches. It was a grouse—and a safe grouse, too, for it had flushed far ahead and kept below the trees, making a shot impossible. I smiled, gritted my teeth and just dared the next one.

I passed then into a swamp. At the same time, a cold sensation at my feet said to me, 'You forgot to get your high-top shoes repaired.' The vegetation was sparse—nothing but muskegs that shook like bowls of jelly when my foot sank in. I was balancing myself on one of these muskegs, fighting to avoid a ducking in the blackish swamp-water, groping frantically to a maple sapling that happened near-by, when—the second grouse went sailing across the forest.

I hadn't much time to hunt this morning, having promised Hooks Gentry to string along to the turkey shoot. So I worked my way out of the swamp-land as quickly as I could, threading my way up a rocky, moss-covered slope filled with maple saplings, determined the next grouse would find me ready.

And then a sudden snap of brush wheeled me around, shotgun on guard. But the white tails told the story. Two does ran full-speed into the swamp-land. I lowered my gun and watched the deer. A drumming behind me spun me in a quick semi-circle. I could see nothing, although I knew that another grouse had flushed.

I began to realize now why grouse were so plentiful in the Pocono mountains. It was not only the fact that the territory was so large measured against the number of hunters. It was also the wariness of the birds, and the thickness of the vegetation.

"Yes sir, they're tough uns to get," Hooks Gentry agreed, as we drove down the Pinchot Trail a short time after, headed for the turkey shoot. "Ain't many hunters tackling the job. But it's real sport! It's tougher'n ordinary now, with all the dry leaves."

We drove to Blakeslee, a small cluster of buildings with a few open fields alongside and tall green pine forest surrounding most of it, and then swung down a dirt road leading to the shoot. I heard the boom of shotguns long before we halted in an amphitheatre-like clearing, where a large group of men were gathered. All of the men were mountain men—broad, red-cheeked fellows, puffing pipe and cigar-smoke like chimneys and talking with the salty tang of the backwoods. At sight of Game Warden Hooks Gentry, Old Pete stepped out.

"I've tooken every prize now, Hooks, it's time you came."

"I never saw the day I could trim you. You could blast the bill off'n a grouse at thirty yards."

"With that goose gun he uses, he just aims by compass!" screamed out Charley Waters.

And then the fun began. Boards were slung high into the air and the men blasted hard at them, two boards for two shells, one man at a time. It was clean, wholesome, woodsmen's fun, with the cool west wind bringing in the bite of tumbling mountain streams and the sweet scent of spruce; with the tall trees swaying in the background, and cirrus clouds moving in slow procession across clear blue sky; with the sounds of heavy masculine voices and boom of shotguns, and smell of tobacco and powder smoke, and faintly, from a nearby lumber project, fresh-cut timber and sawdust. First, the board, end over end, catapaulting heavenward; the gun tipping skyward, gripped by strong arms and with keen eyes following the gun barrel; then the explosion, the gunner recoiling sharply, and the board jarring backward to the chorus of "A hit!"

The match went on for some time. Then Hooks Gentry took opportunity of a short interlude to bound up on a nearby stump.

"Boys!" he cried. "I got a touchy subject to bring up, right now!"

"G'on, speak yer piece!" bellowed Old Pete.

"Yesterday we had a fire," Hooks Gentry went on. "We caught it in time before much damage was done."

"Damage!" echoed Charley Waters. "Dammage my eye! We'd have the best crop of wintergreen and huckleberries in twenty years if we'd have let the son-of-a-gun burn!"

"Yeah an the best damn deer feed in a couple years, too!" another voice cried.

"Wait a minute!" said Hooks Gentry, raising his hand. "Let's look into this thing, boys. Now hang it all, I don't want no fight with you. In deer season you do more good than any single warden could hope to do. In winter, you help put out feed. In spring, you help with the tree-planting, fire-line cutting and refuge work. You obey the game laws and help me enforce them. You're friends."

"We're with you, Hooks, cause you're a square dealer. Ain't no bluff about you!"

"All right, boys. Then, look! When you set fire to a forest, you commit a crime! I know that it makes a fine huckleberry and wintergreen crop, I know the sprouts make fine deer food. But do you realize the terrible things of a fire, men? Think! A fine green forest black and stumpy and ugly! A danger that houses, even villages,—even Stroudsburg or White Haven—might go with the fire! Deer destroyed, protection for wildlife destroyed! Fine timber destroyed! Watersheds ruined! Don't you realize fires up here can mean floods down in Easton or Philadelphia in years to come?"

"Our fathers did it, by Judas, and they told us it was the right thing—and we'll do it too!"

While this argument ensued, I did some sniffling. I began to smell smoke. I began to think of what a wonderful thing imagination was. Think of smoke, you smell smoke, I thought. Then I looked up at Old Pete. He looked calmly across the southern forest, and there was a twinkle in his eye. I saw Hooks Gentry start.

"You fools! You fools! You've fired Long Pond plateau!" He colored quickly and I saw the veins bulge on his neck. Several grouse drummed in from the south. "Come on!" cried Hooks Gentry. "Every man here goes to fight fire—now! Those are orders!"

It was a big fire. It started near Pimple Hill and swept downward toward Long Pond, fanning out on all sides. An erratic wind whipped the flames here and there, making it very difficult to form a plan of fire-fighting. When we arrived—Hooks Gentry and the mountaineers—several acres were in flame and great clouds of smoke puffed into the sky, split open occasionally by savage licks of flame.

Fire Warden Clem Martin and his crew were hard at work, fighting hard with brush hooks and Indian back pumps and wet burlap to keep the fire from spreading. But the fire ran wild; it climbed the trees, cracking and sizzling and roaring, and it licked the leaves until they exploded into flame. In a little while fire was everywhere: on the ground, in undergrowth, in the crowns of trees. Smoke was everywhere—it rolled along the ground, whirling a thick grey circle, and it plunged skyward, throwing a haze across the heavens. From this smoke a deer plunged, wide-eyed with fright, dashing madly to and fro in terrible confusion.

Clem Martin saw the great danger, even as I, the novice, could see.

"Get on ahead!" he snapped to the leader of a crew newly-arrived from Pocono Pines. "Cut a line by Pocono Lake! Get every available man—*and cut that line!*"

I labored with Hooks Gentry's crew, working with an axe, trying to cut gaps to prevent the fire from jumping. But time after time the fire conquered us, drove us back to start the fight anew. It was a choking, blinding, senseless fight, in the heat of the devil's furnace; it was fight, retreat to escape cremation, fight, retreat; on all sides men pounded the flames, and swung axes, and worked pumps, only to have the flames snarl back, like some living gargantuan monster spitting out tongues of fire to force us back, and back, and back.

The fire spread. It ran everywhere, a wild and demon-like thing unloosened, a

*(Continued on page 32)*

# The Log of Rattlesnake Shack

The Road to Camp

*By A. B. Champlain*

***This is No. 7 in a series of nature stories by Dr. A. B. Champlain, State Entomologist, who has spent every week end for ten years at Rattlesnake Shack***

RATTLESNAKE Shack is a lonely place during February. This month is much like January, and, although the sun is only 92,999,876 miles away, it seems much farther now. Low temperatures prevail, people steer clear and the animals and birds have either migrated, are hibernating or huddle in sheltered places, waiting for better days. The food situation is the problem with our active native creatures at this time and their ration cards are at the lowest ebb.

This is when the feeding of game and wildlife pays dividends to us human beings for it is important that these natural resources for which Pennsylvania is noted, should also be considered in our plans for economies and conservation.

Snowbound most of this month, our camp area is a fairyland in sunlight. The glistening bush and silvered mountains command our admiration. We continue our pilgrimages and distribute food along the avenues of wildlife traffic, which diverge and spread between the trails over the snow covered mountain side in irregular meanderings. Squirrel tracks back and forth in regular routine, some indicating the thaws and warmer days by deeper foot prints in the snow, others just a trace of tiny claws etched into the crust when temperatures are low. Squirrels also may be found in leaf nests during all of this month. The tracks of rabbits and deer indicate their presence in the feeding area and fox tracks, wherever the other tracks lead, show the snooping qualities of these predators. Animal tracks other than these give us a thrill when we make our rounds.

The usual winter birds are all present during this month, then in the latter part of February the fox sparrows and white throated sparrows begin to appear and join our feeding parties at the shack. Also past the middle of February the first buzzards drop into our valley; our records show that they have been observed here as early as February in 1939, but the 22nd and 23rd of the month were our usual yearly records.

Wheel-chains were generally a part of our automobile equipment for making the trip, and as usual we had our occasions of sticking in the snow drifts. Among the unusual incidents during this month was the acquisition of a good dose of ivy poison by yours truly, when digging the car out of a snowbank. Some of the poison ivy roots were probably disturbed when digging beneath the snow and the sap came in contact with my hands. It did not act quite as virulently as a spring or summer infection.

Sometimes the winds whistle and howl through the valley, and we are glad for the shack's comfortable wood fire and shelter—for the radio, books or writing materials to while away the hours.

Finally there is an indication of spring in the air during the very latter part of the month, often deceptive however, but a suggestion of nicer days to come. Even the Narcissus are fooled and peep up through the snow or dead leaves along the stream, with enough temerity at times to shoot buds. Other green things color the stream edge and we begin to have the urge for the later gardening.

In this vast roofless temple of the out of doors we have thrills, adventures, and experiences that cannot be found in populated places.

**Splendid shot of deer feeding near woodland by W. P. Meeker, Snowshoe, Pa. Note the one on the alert.**

# WITH THE BOYS IN THE SERVICE

"Well boys and girls it looks like it won't be long now. We are under 12 hour stand-by orders. That means we can expect sailing orders that will give us 12 hours to get our junk together and get the heck out of here. Twelve minutes is all I want because I'm surely ready to shake the dust of California from my dogs, and incidentally my hair—ears, eyes, nose and mouth. This is as dusty as the darned dustbowl. Right now as I look out the front of my hut I can see California blowing by in great yellow clouds. Everything you touch is grittie.

"What's more—winter weather on this little strip along the coast is perfectly lousy. Actual 30 degree drops and jumps in temperature in a matter of 2 hours are really common. They wear out a thermometer here in about two weeks.

"All scuttle-butt (rumor) points to New Caledonia as our likely destination. We are to be held in reserve there to rush up and build new bases as our forces advance on Tokio. (I hope it's the truth.)

"I was finally chosen as one of our five Browning Automatic Riflemen and I surely am raring to see what a Jap will do when he gets "goosed" at the rate of 600 times per minute.

"Best regards to you all and don't be so darn conservative with paper, ink and writing time. I'd like to hear from you a lot more often.

"My new address is: C. Gordon Krieble, P3c, Co. C, Navy 8110, c/o Fleet Postoffice, San Francisco, California."

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"Hope you will forgive me for not sending my thanks long before this for the copies of the GAME NEWS which I have been receiving regularly. Nevertheless you can rest assured that it's one unofficial publication that gets more than its share of attention and distribution.

"My first assignment as a 'Shavetail' from the Officer's Candidate School, Fort Belvoir, Virginia, changed my theme song to 'Deep in the Heart of Texas.' Although the 'Pennsylvania Polka' is still good enough for a Pocono stump jumper.

"The 511th is a special stream crossing unit carrying, principally, light pontoon equipage. Our chief aim is to bridge the Rhine before another hunting season rolls by. Rather a big order but, as the Texans say, 'I reckon' we can do it.

"Can't say much about the wildlife (fur and feather variety) in this part of the Lone Star State. But there certainly is plenty of room for it.

"More next time. Meanwhile best of luck during the hunting season."—Lieut. Gilbert L. Bowman, 511th Engr. Co., L. Pon., Camp Bowie, Texas.

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"Enclosed find money order for my subscription of your PENNSYLVANIA GAME NEWS for the two years offered in your recent advertisement.

"Let me add that I have been receiving this magazine for the past two years and also have been reading it before that period. It certainly has helped me, especially in my early months of army life when one's thoughts currently turn to home, and more recently has it been appreciated as again hunting season approaches us, for once an outdoorsman always so.

"It was my privilege to be home for a week's furlough during the early part of this small game season. I had a lot of luck—no I don't mean I killed a lot of game, but what a thrill to get back to those old woods and brush patches that are so familiar, and where I used to delight to take grain and apples in the winter. The hounds certainly seemed to sense that I had only a small time to enjoy this great sport and what a wonderful feeling to hear that old cry as they took those rabbits up and down the mountain side. I don't think I have to write any more to tell you what a real time I had on that week's furlough.

"Some day—soon—we'll all be back to enjoy those privileges we are now fighting for. Keep up your good work, especially your fight for the sportsmen who want to keep their firearms for their own sport and pleasure—you've been doing a grand job and it has had a lot to do in the success of this cause.

"In closing I must tell you that your magazine is also being read by the other boys of my outfit and appreciated by them as well as by myself."—Corporal E. J. Price, 1st Band, A.A.R.T.C., Fort Eustis, Virginia.

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"Received yesterday the two copies of the GAME NEWS, October, you so kindly forwarded me. And believe me that rag was appreciated like never before. Read everything in it from cover to cover. Speaking of covers, that one was clever. Several of the boys here are from Penna. and they certainly get a bang out of the magazine. Even those unfortunates not from Pa. still get a kick out of good hunting stories.

Wonder if you can persuade Alex Sweigart, if he's not in uniform, to send me copies of the *Angler*. Certainly would appreciate it. All I can do here is read about my sports. Haven't done any hunting as yet, but if I do get the opportunity to try my luck on any form of game, you may rest assured that you will get all the dope, without pictures of proof, censor willing.

Leo, after being here I can't understand why some of the boys still want to stay at home. Of course we don't have everything here, but believe me we've got enough. Far better food and living quarters than at home. And how in the heck will any of us get home, if more of us don't get over??? You understand, I'm sure, because you were over in the last mess.

Please give me the latest dope on Krieble, Henry, Bill Miller, and all the rest of the boys in the service. Now you can never tell when you're going to run across one of them somewhere or another.

Enclosed please find one print for your Rogues' Gallery. Perhaps your boys could do a better job, subject or object considered, but here we take what we get. Not too bad considering the equipment of the native photographers.

Be sure and let me know just how the hunting was this year. And pass on to the others my promise to write anyone who bothers to drop a line to,

"BOB" MCDOWELL,
*Somewhere in Central Africa.*

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That teller of fish tales, our good friend Alex Sweigart, Editor of the *Angler*, is enjoying army life at Fort Eustis, Virginia. Private Sweigart is in Btry. B, 12th Bn.

R. B. Troxel 33492621, State Botanist, long a contributor to GAME NEWS, is also doing his turn as a Private in Company G, Second Bn, 1st C.W.S. Trg. Reg., Camp Sibert, Alabama.

Had a nice card from Bud Greenwood, son of our genial Game Farm Superintendent and his wife, Mr. and Mrs. Earl Greenwood. Bud says 'Merry Christmas' wherever I am."

Cards also from Sergeant Lee M. Hayes, former president of the Keystone Sportsmen's Organization, Harrisburg. Lee is located at Seattle, Washington, and you can reach him by addressing your communication to A.S.N. 33162814, Railroad Detachment, A.P.O. 945, and from Private Charles A. Wiker, Company G, 119th Inf., Camp Banding, Florida.

**In the past several weeks three more field officers were added to the service roll: Game Protectors George B. Smith, Fred L. Myers, and Louis D. Mostoller. Good luck boys.**

**George B. Smith**
**Po3c, U. S. Navy Shore Patrol, 14th & Race Sts., Philadelphia.**

**Fred L. Myers**

**Louis D. Mostoller**
**(No address as yet)**

# ★ ★ ★ CURRENT TOPICS ★ ★ ★

## New Commissioners

**As this issue was going to press we were advised of the appointment by Governor Arthur H. James of two new commissioners—Dr. C. E. Phillips of Sunbury who was appointed on January 4, and A. J. Hanes of St. Marys, who was appointed on January 12. Commissioner Phillips, the third individual with that name to serve the Commission, succeeds Hon. Carl W. Rothfuss, who was appointed by Governor James on December 9, 1942 but resigned shortly afterwards (December 29, 1942) because of ill health. Commissioner Hanes succeeds Hon. A. W. Lee, Jr., Clearfield.**

**While we were able to make these changes on the masthead this month, it was impossible to hold up publication long enough to acquire the usual biographical sketches and photographs of the new and retiring Commissioners. This information in detail will be forthcoming in the March number.**

## Lost

Lost: One setter dog answering to the name of "Judge," on Thursday, November 26, in the vicinity of the Chambersburg Water Shed, about midway between Graffonsburg and Pine Grove. Right side of face, eye and ear, black; left side of face and eye, white; with right ear mixed black and white; balance of body lightly ticked. Age, one year. Not broken. Was wearing collar with name of G. Frank McConnell, Stewartstown, York County, Pa.

Lost Dog—Reward Offered

One dog answering to the name of "Blackie," cross between English Setter and Water Spaniel, weight—65 pounds, height—25 inches at shoulder, black with white markings on legs and throat, wearing heavy collar with Philadelphia County license No. 1272. The dog was lost November 11 while hunting in the vicinity of Tullytown. Please advise Stanley Skowronski, 7139 Montour St., Philadelphia, Pa.

*Photos by Delbert Batcheler*

**John Hoover of the Harrisburg office of the Game Commission holding handle of car door found inside abdominal cavity of deer shown opposite.**

"LOST HUNTER: On Wednesday, December 3, 1942, while hunting in the vicinity of Blyson Run, Clarion County, George Boyles, Jr., age 16, Clarion, killed a seven-point buck and lost his way while trying to get the deer back to his auto. When he failed to show up by 10:00 P.M. other members of his party called Game Protector Levi Whippo, Deputy Game Protector Cliff Gill and myself to organize a hunt for the boy. Starting out about 1:00 A.M., and after about an hour's hunt, we were able to find where the boy had abandoned the deer. Taking his track in the snow we found him in a semi-conscious condition about 5:00 A.M. His face, hands and feet were badly frozen as the temperature was near zero that night, and he had not been able to start a fire. This boy had been lying where he was found for about 11 hours, and would not have lived much longer."—Game Protector Duane E. Lettie, District 11, Division "F."

## One for Ripley

Stanley, Jr., son of Deputy Protector Stanley L. Strong, Blossburg, Tioga County, killed the 10-point buck shown below on December 2, last season. His father dressed the animal and upon reaching in to remove the intestines observed an unusual growth in the upper portion of the abdominal cavity near the paunch. After removing the viscera he cut the mass free from the intestines and noticing it was quite heavy made a slit in it and found—above all things—the handle (shown opposite) from an automobile door. There was quite some publicity regarding the handle and different people tell Strong about hitting a deer and losing the handle but he just tells them to produce the key to fit the lock and the mystery will be solved.

**Stanley Strong, Jr., with deer from which door handle was removed.**

# ★ ★ ★ CURRENT TOPICS ★ ★ ★

## FIELD NOTES

"The deer season started off very well with many hunters and a fairly large kill. The deer were for the most part good sized with nice racks. I observed one rather funny kill—a 4-point buck in 'velvet,' one antler bleeding where it struck the ground."—Edward L. Shields, Game Protector, District No. E-6.

"On Sunday, November 22, Deputy Kenneth Durstine and myself were looking for a deer which had been reported killed on the Baltimore and Ohio Railroad between Dawson and Layton. As we were proceeding up the tracks along the Youghougheny River we noted something floating down the river. As it came closer we discovered it was a deer. The current was carrying it along very swiftly, and the deer did not seem to be making any effort to swim to the shore. After shooting in front of it with our pistols and shouting at it we finally forced it to the opposite side of the river. After several attempts it jumped out on the shore and disappeared into the woods. We then continued on down the tracks and found a nice five point buck which had gotten in the way of a fast locomotive."—Lester E. Sheaffer, Game Protector, District G-14.

### *Honored*

**Harry E. Cudney has the distinction of being not only the oldest employee in point of service, 35 years, in the New Jersey Fish and Game Commission, but that service has been characterized by an unusual sense of loyalty and devotion to his employees and the sportsmen of the State, and he has displayed an efficiency that has marked him as an out-standing public official.**

"On Wednesday afternoon, March 15, I was in the Bear Meadows section looking to see if the turkeys had eaten some feed I put out for them. There was about two inches of fresh snow on the ground. As I was going down along the meadows I came across a gray fox track. I followed this track down a fire trail for about one mile to the Bear Meadows road and then out the road about ¼ mile to the bridge.

"Just as the track came to the bridge, I noticed wing marks on the snow each side of the fox track. The fox had jumped to the side of the road and tramped around quite a bit. Here I also found a number of small, buff-colored feathers.

"About 10 feet from where I saw the first wing marks, and on the center of the bridge, there were a good many tracks, a few buff-colored feathers and a number of fox droppings. Here there were several bird tracks, the toes of which were about 3 inches long.

"The fox tracks then led out the road, and on one side about 12 inches apart were the tracks of the bird, made as though it had only one foot free. On the opposite side of the fox tracks were wing marks. The tracks went about 150 feet and there was the complete hide of a gray fox with the head and the feet attached. The backbone had been torn out and lay there on the snow. There were only a few bird tracks here though.

"I came home, got several traps and went back to the place where the fox was killed. There was a stump along side the fox remains on which I put the hide and set the traps.

"The next morning accompanied by Fish Warden Dahlgren, I went back to the traps and found a large barred owl dead in one of the traps. The feet of this owl matched the tracks in the snow; also the buff-colored feathers were the same as those on the owl's back.

"This happened on a fresh snow and there was not another track of any kind around. The crows were working on the fox remains when I found it."—Sam B. Reed, Deputy Game Protector, St. Marys.

"I was privileged to witness a very unusual occurrence last summer while on patrol in Jack's Mountain. Following an old tram road, my attention was directed to a noise in the dense laurel which grew along the road. The rustle of the leaves suggested several turtles. Closer inspection, however, disclosed that it was a fight to the death between a rather large blacksnake and a Cooper's Hawk.

"At the time I first caught sight of the struggle the snake had almost complete control and was wound firmly about the hawk. I watched until certain the hawk was dead before I killed the snake. The right leg of the hawk had, at one time, been broken and poorly healed. Obviously this denied him the use of that foot, and apparently without it he was unable to match the snake in battle."—C. F. Walker, Division "C"

"This Fall as I was driving slowly down the road in my car (conserving gas and tires) I noticed a house cat trotting along the side of the road ahead of me with a freshly killed mouse dangling from its mouth. (This time it didn't happen to be a rabbit.) Suddenly, seemingly from nowhere, a sparrow hawk dived out of the sky and very deftly took the mouse out of the cat's mouth and flew off with it. For a split second the cat stopped in its tracks, apparently numbed by the suddenness of the attack, and then lit out for home with its hair standing on end as if he were being chased by some ferocious dog. It would seem that this little hawk has been endowed with his full share of courage."—Roger Latham, West Chester.

"Judging from an experience a friend of mine had this Fall I would say that the educational program of the Commission is accomplishing its purpose.

"Late one afternoon in November this friend, while hunting, came across a young lad about fourteen who was hunting by himself. The two stopped to talk a moment and during the conversation this friend noticed a loud ticking sound coming from the boy's hunting coat. Being curious he asked the lad the source of the ticking and the boy pulled a large alarm clock from his coat and said that he had the alarm set for six o'clock so he would be sure not to hunt overtime."—Roger Latham, West Chester.

### *Leaves Service*

**Edwin J. Stucke**

Philadelphia County will not seem the same with Ed Stucke out of the picture, nor will the office seem quite the same with Gillie Davis gone. Both men resigned only very recently—Mr. Stucke, Game Protector in Philadelphia County since April 16, 1929, and Mr. Davis as a clerk in the Division of Land Management since October 24, 1930. Gillie entered the service as a messenger and storeroom keeper but was later transferred to the Division of Refuges and Lands.

Ed Stucke, who was as versatile as the day is long, having been a businessman, taxidermist, artist, etc., went into the defense industry in Miami, Florida.—Good luck fellows.

# Skeet Gets a High Rating

SPORTS OF THE TIMES by JOHN KIERAN
Reprinted by special permission *New York Times* and Mr. Kieran

THE uses that various sports can be put to in a war are astonishing. The Air Corps, for instance, is looking for skeet shooters now. They have some. They could use more.

There may be some baffled bystanders who would be puzzled if a man told them he had been skeet shooting that morning. This observer is no expert in that field and, to be honest, never has seen a skeet shoot. But Major Jack Hession, the trickster with rifle and revolver, once explained it, with diagrams, in quiet moments during a sailfish hunt in the Gulf Stream off Key Largo, Fla. This was some years ago, but Major Hession is a clear, forceful talker on anything that has to do with guns and targets and the memory lingers.

Subject to correction from those who know better, this observer would describe skeet as an enlarged game of trapshooting. Instead of having one straightaway bank of traps behind which the shooters stand and blaze away at the clay pigeons as they pop up, the skeet shooter faces a semicircle of traps. He has to swing from one side to the other for quick shots. His target may zoom from any point in a 180-degree arc.

### Looking Backward

Just about two years ago there was a story on the sports pages to the effect that Robert W. Canfield of Locust Valley, L. I., had won the Great Eastern skeet championship at Stratford, Conn. He hit 100 straight "birds" to tie another good gunner and then wrecked twenty-five more flying targets in a row to win the title and walk off with whatever medal, cup or salad bowl went with it. There was another story some time later that this same Locust Valley Hawkeye had made a new record for consecutive hits in skeet shooting, but this innocent bystander doesn't recall the exact number and will let it go at that.

About the time that Robert W. Canfield was acquiring the Great Eastern skeet championship with his trusty shotgun there was lounging on the beach at Fire Island a large, genial, nicelooking fellow by the name of St. Clair McKelway. He wrote pieces for the upper-crust magazines. If he knew skeet from skating, he never betrayed it. But now he is Captain St. C. McKelway, Air Corps, and a big skeet booster. He has been talking with a fellow who does know a lot about it. That fellow is Captain Robert W. Canfield, Air Corps, former holder of the Great Eastern skeet championship.

There arrived a letter from Captain McKelway from which the following excerpts are offered:

"As you may or may not know, the Army Air Forces was represented at the national skeet championships at Syracuse, N. Y., Aug. 5-9, by a team of five officers and five enlisted men from the Flexible Gunnery Schools of the Army Air Forces.

"Gunners graduated from the Flexible Gunnery Schools in the Army Air Forces now receive flying pay, the rating of a sergeant and will wear wings just like the pilots, bombardiers and navigators—with, of course, a special symbol indicating that they are flying gunners."

Beyond that, Captain McKelway explained briefly that skeet shooters—good ones—were handy lads to have at the flexible guns in the aft region of the big bombing ships of the air. A pilot up forward feels much more comfortable about his ship and his crew—and his chance of getting to the target—when he has a good rear gunner to knock off intruding enemy fighters.

### Flying Shots

That's where skeet comes in. It's a test of wing shooting. The mark is a flying target. The gunner has to make a swift estimate of the distance ahead of the target he has to aim at in order to have his bullets arrive there as the enemy plane cuts through that section of the atmosphere.

Captain McKelway didn't trust himself to explain the exact technique of the process and calculations involved. He enclosed a five-page article on that by Captain Robert W. Canfield, the former Great Eastern skeet champion. Captain Canfield explains that a rear gunner makes his estimate of how much to "lead" an enemy plane, just as a hunter in the field or a shooter at the traps judges the "lead" necessary to bring down his flying targets.

It is, as Captain Canfield states, "fundamental" that all wing shooting is basically alike, and the fellows who handle flexible guns aloft are wing-shooting with their lives and the lives of others depending upon their accuracy.

### Chalking Up a Score

Captains McKelway and Canfield didn't mention it, but the story goes that the rear gunners felt pretty lonely and didn't like the job. But in one scramble in which our planes knocked down a dozen Japs the rear gunners accounted for nine of the enemy. Now the boys are bidding for those seats and consider them choice locations. Judging from the contents of the communication from "Headquarters Flying Training Command," good skeet shooters are the lads they like to have back there.

**Both trap and skeet help perfect the hunter's aim, though the latter undoubtedly provides the best training.**

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"The article "Wild Dogs in Pennsylvania" published in the most recent issue of your magazine reminds me of an experience during the last war having been then an officer in the Austro-Hungarian army.

"In the Carpathian mountains in Rumania we came to some villages shortly before deserted by their inhabitants. Astonishingly enough, the dogs had stayed there, all of them large and strong, an undefinite breed, of course, and more or less like wolves. They were shy and, on the other hand, pugnacious, because deprived of the little food they were accustomed to. After a while they all left the villages and seem to have gathered in packs in the surrounding woods which was in part a dense, virgin stand. I do not know, of course, if they really mingled with wolves being not rare in this country. But, actually they started to attack our pack trains, killing and feeding on good sized horses and mules. The soldiers convoying these pack trains were instructed to shoot them whenever there was an opportunity. That these beasts turned wild, preyed on deer and other game, there is no doubt.

"When I once was out in a glittering cold winter night trying to shoot a fox I saw in the sparse light a big animal's silhouette which we, myself and a non-commissioned officer who went out with men, held to be a wolf. I was lucky, notwithstanding the poor light and the distance of more than a hundred yards, to get the quarry with the first shot of my ordnance carbine. As we looked at the animal with our flares, it turned out to be a dog, as indicated by the more rounded form of the head, otherwise, in the whole shape of the body, the size, the pelt, there was practically no difference with a wolf."—Leo Fishman, 1737 Vine Street, Philadelphia, Pa.

# My Land and Your Land

BELIEVING that the fundamental problems involved in the restoration and preservation of wildlife are inseparably linked with those of pure water, perpetual forests and productive soil, the National Wildlife Federation has published four books to bring dramatically and entertainingly the story of our national existence to the school children of America.

"My Land and Your Land" is the general title of these books. They provide basic conservation information and each one is written with a special appeal to a particular age group or grade in our public schools. Six years of research by leaders in the educational field were devoted to the preparation of the 160 pages of text. Illustrations, both in color and black and white, giving life to the text, are found on every page.

"Would You Like To Have Lived When?" is the first title of the series and is adapted for children in the 3rd, 4th and 5th grades. It is a graphic, interesting tale of what our forefathers found here when our country was young. Virgin forests and soil, pure, clear lakes and rivers, wildlife of all species in abundance greeted the early settlers. It paints the picture of our expanding country, of the movement westward over the mountains of New York, Pennsylvania and the Virginias into the valleys of the Ohio and the Mississippi by oxcarts, flat boats and covered wagon. Cutting down forests to make farm land, plowing up the prairie for more farm land, killing off much of nature's store house of wildlife made problems for the generations of people who followed these pioneers in the frontiers.

### Raindrops and Muddy Rivers

"Raindrops and Muddy Rivers" is the second title in the series of Conservation books. It is adapted for grades 4, 5 and 6. In it the student is shown in simple words, pictures and example how dependent all life is on pure, clean water. The interrelationship of water, soil and life is a story of absorbing interest. Drought, erosion and floods mean either too much or too little water. The wise control and use of our streams, lakes and other waters are pointed out by illustration which prints in the mind of the student the morals to be learned.

### Plants and Animals Live Together

The third title in this series of instructive Conservation books is "Plants and Animals Live Together." Plants are the only natural food factories. All animal life, including man, is depending upon them in one form or another. This intricate relationship is beautifully told and brings into the mind of the student the need for careful management and use of these bountiful warehouses of nature. The harmful insects, plants and animals are brought to the attention of the reader and he is able to weigh their values in his own existence.

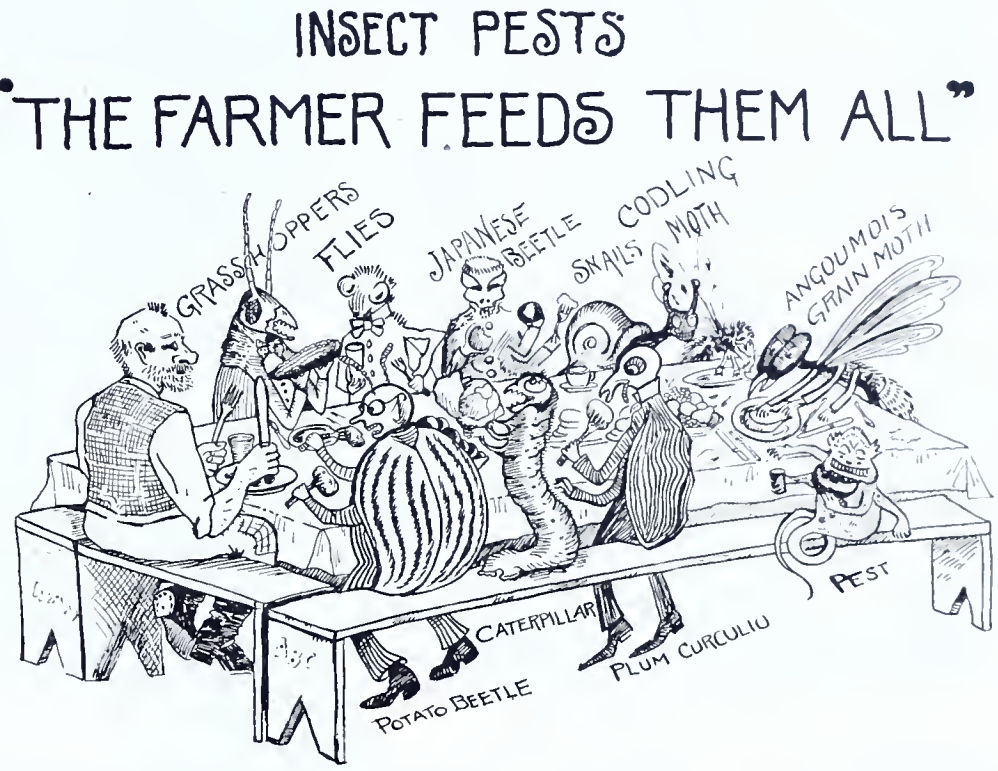
### Nature's Bank—The Soil

The fourth and last title is "Nature's Bank—The Soil," adapted for the 6th, 7th and 8th grades. Step by step through the first three books the authors have brought to the student the story of water, forests, plants and animals, and the value and importance of each in our own life. In this last book the riches of the soil are brought into bold relief. Everything that lives and breathes comes from the soil, either directly or by several steps. These steps are delightfully told and become fixtures in the student's mind. Nature's bank is the richest and the oldest bank in the world. How to extract these riches without robbing the bank is the theme of this book.

Emphasis throughout the four books is placed on the relationship and interdependence of water, soil, forests and wildlife. The authors are all able educators in our schools and colleges, and are familiar with the student's psychology and reactions to the things of nature. Nowhere has there ever been focused in such a series of booklets as much vital information about conservation as in these four books.

The National Wildlife Federation, whose executive offices are at 1212 16th Street, N.W., in Washington, D. C., has as its chief objective an educational program to bring home to child and adult the vital importance of preserving our soil, our water, our trees and our wildlife, so that future generations may enjoy and use it to its fullest and richest extent.

These books are sold by the Federation on a non-profit cooperative basis to schools throughout the country in the hope that the lessons they teach will be one of the means of preserving our soil, our water, our forests and our wildlife so that those who follow them may enjoy a better and happier life in a cleaner and healthier country.




*Drawing by Dr. A. B. Champlain*

## BOOK REVIEW

"My Fish Friends," by Myron E. Shoemaker, Laceyville, is an elementary school unit that deals with the fundamental principles of conservation. It is in use in many schools and libraries from coast to coast and is becoming more widely used and demanded each day. Educators have praised it highly and recommend it as a useful educational unit. His recent book "Fresh Water Fishing," published by Doubleday, Doran and Co., Inc., New York, is an authoritative book on fresh water fish, fishing and conservation and its history. This book also is already widely used by fishermen, nature lovers, conservationists and as a reference book in schools and colleges.

Myron E. Shoemaker has spent a lifetime in the field of conservation. Early in life he started working for the Pennsylvania Board of Fish Commissioners and was connected with them for twenty-seven years. This provided an opportunity to study conservation at first hand, to learn about the soil, water, vegetation, wildlife, as well as providing the key to opening a much broader field of conservation. For many years he pioneered in the cause of conservation education in the public schools, talking before thousands of school children and adults throughout the state. He studied educational curriculums and their possible connection with conservation in its broadest aspects as it might apply to every phase of American life and living which is included in educational programs.

grouse in the George Washington National Forest, the five most important foods were greenbrier, mountain laurel, blueberry, aster (*Aster* spp.), and rose (*Rosa* spp.). Here, again, the basis used in determining the preferred foods was frequency of occurrence. The present study of the 1940 crops agrees more nearly with this last mentioned study than with the findings of Kuhn in 1938 and 1939. Table 3 shows the comparison of the four studies of the preferred foods of the ruffed grouse.

### Conclusions and Remarks

The wide variation from year to year in the food preferences of grouse may indicate several environmental changes, such as crop failure of certain plants, bumper crops of certain other species, inclement weather making it feasible to use only certain plants, the whims and fancies of the individual birds, or many other similar causes.

Unlike the foods of the ringnecked pheasant, the foods of the grouse are so varied in type that some are available in practically all kinds of weather. Thus the problem of providing winter food for this bird is not so serious if forest management practices have caused the growth and maintenance of a wide variety of woody plants.

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TABLE 1.—*Source and number of crops received*

| County | Crops | County | Crops |
|---|---|---|---|
| Adams | 1 | Indiana | 3 |
| Armstrong | 1 | Jefferson | 14 |
| Bedford | 1 | Lackawanna | 1 |
| Blair | 3 | Lycoming | 6 |
| Bradford | 3 | McKean | 2 |
| Cameron | 1 | Monroe | 2 |
| Centre | 8 | Potter | 1 |
| Clarion | 4 | Schuylkill | 2 |
| Clearfield | 3 | Somerset | 9 |
| Clinton | 7 | Susquehanna | 4 |
| Crawford | 3 | Warren | 1 |
| Cumberland | 3 | Wayne | 5 |
| Elk | 7 | Westmoreland | 1 |
| Fayette | 11 | | |
| Franklin | 3 | | |
| Huntingdon | 2 | Total | 112 |

# What Grouse Eat During the Hunting Season

*(Continued from page 6)*

Conserve
Waste Kitchen Fats
SAVE
Your Tin Cans

TABLE 2.—*Analysis of contents of 112 crops of the ruffed grouse collected in November 1940*

| Item | Frequency of occurrence | Percent volume |
|---|---|---|
| Birch (*Betula* spp.) | 22 | 3.683 |
| Staghorn sumac (*Rhus typhina*) | 19 | 4.123 |
| Aspen (*Populus* spp.) | 17 | 8.213 |
| Blueberry (*Vaccinium* spp.) | 17 | .920 |
| Mountain laurel (*Kalmia latifolia*) | 16 | 3.683 |
| Greenbrier (*Smilax* spp.) | 16 | 5.406 |
| Fern | 13 | 1.658 |
| Wintergreen (*Gaultheria procumbens*) | 12 | 1.436 |
| Grape (*Vitis* spp.) | 10 | 1.734 |
| Wild gooseberry (*Ribes Cynosbati*) | 9 | 3.314 |
| Dogwood (*Cornus* spp.) | 9 | 17.126 |
| Maple (*Acer* spp.) | 9 | 1.214 |
| Willow (*Salix* spp.) | 7 | 8.403 |
| Shadbush (*Amelanchier* spp.) | 6 | 1.362 |
| Cinquefoil (*Potentilla* spp.) | 6 | 3.683 |
| Hazelnut (*Corylus* spp.) | 5 | 3.204 |
| Rhododendron (*Rhododendron maximum*) | 5 | 1.473 |
| Hemlock (*Tsuga canadensis*) | 4 | 1.066 |
| Arrowwood (*Viburnum* spp.) | 4 | .143 |
| Witch hazel (*Hamamelis virginiana*) | 4 | 1.436 |
| Oak (*Quercus* spp.) | 3 | 3.278 |
| Wild cherry (*Prunus* spp.) | 3 | 2.688 |
| Beech (*Fagus grandifolia*) | 3 | 1.915 |
| Mountain holly (*Nemopanthus mucronata*) | 3 | .773 |
| Rose (*Rosa* spp.) | 3 | .034 |
| Hackberry (*Celtis occidentalis*) | 2 | 5.377 |
| Hop hornbeam (*Ostrya virginiana*) | 2 | .143 |
| Hornbeam (*Carpinus caroliniana*) | 2 | .073 |
| Grass (*Panicum* spp.) | 2 | .405 |
| Smooth sumac (*Rhus glabra*) | 1 | .180 |
| Bramble (*Rubrus* spp.) | 1 | .073 |
| Hawthorns (*Crataegus* spp.) | 1 | .034 |
| White avens (*Geum canadense*) | 1 | .331 |
| Crab apple (*Pyrus coronaria*) | 1 | .034 |
| Pine (*Pinus* spp.) | 1 | .034 |
| Corn (*Zea mays*) | 1 | .143 |
| Clover (*Lespedeza frutescens*) | 1 | * |
| Duck millet (*Echinochloa crus-galli*) | 1 | * |
| Sorghum (*Holcus sorghum*) | 1 | * |
| Sorghum (*Holcus sorghum sundanensis*) | 1 | * |
| Bittersweet (*Celastrus scandens*) | 1 | * |
| Nightshade (*Solanum Dulcamara*) | 1 | * |
| Unidentified material | 65 | 10.865 |
| Gravel | 11 | .180 |
| Insects | 6 | .073 |
| Empty | 6 | ..... |

* Trace.

TABLE 3.—*Comparison of the five most important foods of the ruffed grouse based on frequency of occurrence*

| Kuhn (1938) (230 crops) | | Kuhn (1939) (207 crops) | | Nelson, Clarke and Bailey (1938) (291 crops and gizzards) | | Merritts (1940) (112 crops) | |
|---|---|---|---|---|---|---|---|
| Sheep sorrel | 103 | Fern | 66 | Greenbrier | 110 | Birch | 22 |
| Bramble | 75 | Bramble | 63 | Mountain laurel | 89 | Staghorn sumac | 19 |
| Foamflower | 65 | Sheep sorrel | 61 | Blueberry | 84 | Aspen | 17 |
| Cherry | 52 | Wild cherry | 35 | Aster | 80 | Blueberry | 17 |
| Fern | 52 | Grass | 35 | Rose | 74 | Mountain laurel | 16 |
| | | | | | | Greenbrier | 16 |

# The Panther in Pennsylvania

*(Continued from page 7)*

says signs of a panther still in Rock Run region, Aaron Halls old hunting territory, Centre County. 1910. James Karstetter reports panthers crossed Sugar Valley, Clinton County, by the old panther's path, where he had watched them on moonlight nights in 1876. 1909.

Panther seen several times in the vicinity of Sidney's Knob, Bedford County, by the father of John Shore, an old hunter. 1908. A pair of panthers tracked across John Lebo's place on Coudersport Pike, headed in the direction of Slate Run. 1907. John Lebo sees a pair of panthers crossing his field, gets out his dogs, but they circle and elude him. 1906. John Lebo tracks panthers in snow into white pine plantation, back of his home, but they escape his dogs. 1905. Several young cattle killed by a panther at Hy Woods place on Coudersport Pike, three miles north of Lebo place, the tracks seen by Captain S. T. Moore, head surveyor, State Forestry Department. 1904.

Captain Moore sees carcass of panther on "Barroom floor" of "Fallon House," Lock Haven, surrounded by huge crowds. Killed on Scootac by Earl Monaghan. 1903. A giant panther comes on roof of the Simcox lumber camp, on Scootac, to get at hams hanging from rafters; it was shot; was very grey, and few teeth left, indicating advanced age. 1902. Delbert Reynolds tells of seeing a panther caught in a trap, and shot, at Brookfield in northern Tioga County; it had been after the cattle for several weeks. 1901. Opening up the lumber region at head of Medix Run, tracks of several panthers are noted. 1900.

Hon. R. S. Quigley, of Lock Haven, sees three panther cubs, playing in sand, on an old road on Scootac, Clinton County. 1899. A panther crossing and hesitating on a narrow gauge logging railway near Johnsonburg, Elk County, in a snowstorm, is killed by locomotive, and parts brought into Johnsonburg on the cowcatcher, (Described by Mike Sullivan, and eyewitness, to writer, December, 1910). 1898. O. C. Huff, caretaker Lewisburg Water Works, sees tracks of panthers on North Mountain, Luzerne

*(Continued on page 32)*

# Many Waterfalls n Pennsylvania

*(Continued from page 13)*

ottsville sandstones and falls over them nto the main stream.

At Breakneck Bridge, 2½ miles south of ose Point, Cheeseman Run likewise umbles over these sandstones at its mouth nto Slippery Rock Creek.

Farther south, in Perry Township, "mas-ve conglomerate sandstone on Slippery ock Creek near Eckert's bridge attains an nmense development, and Glenns Run, utting down through its top, makes a per-endicular plunge of 50 feet over its most assive portion, amidst a scene of the wild-st grandeur."

Along Beaver Valley several tributaries il to enter Beaver River at grade, cas-ading over massive sandstone at their ouths. In Shenango Township four miles outh of New Castle a little stream in a de ravine at Hog Hollow makes a vertical rop of 30 feet over the Vanport limestone, nd in Wayne Township between Chewton ud Rock Point, Spanglers Run passes over e massive Pottsville sandstone in a series f falls at its mouth.

Hickory Creek in North Beaver Township sed to make a vertical plunge of 20 feet ver the Vanport limestone near Bessemer. xtensive quarrying may have disposed of is feature. There is a small fall in this reek near Mt. Jackson. Jenkins Run, in e southeast corner of this township, en-rs Beaver River about one mile above ish Ripple, descending 40 feet in as many ards in a series of cascades over the Home-ood sandstone. Other small streams, like e one in Possum Hollow, cascade at their ouths into both sides of Beaver River.

In Mahoning Township about one mile orthwest of Hillsville and half a mile east the Ohio line, Quakertown Run descends to the right bank of Mahoning River over and through the Pottsville sandstones in a series of falls and cascades.

**Luzerne County**

*Kitchen Creek.*—Anyone who has sought the beauty spots of Pennsylvania has at least heard of Kitchen Creek and its glen 700 feet deep and two miles long. About 60 years ago I. C. White of the Pennsylvania Second Geological Survey wrote of this place: "Long Pond drains into Kitchen Creek by a series of superb cascades through a chasm, with perpendicular cliff walls, af-fording rare scenery. This should be a favor-able haunt of landscape painters."

According to the topographic map of the

*(Continued on page 30)*

*Photo by Bob Ford*

**A drama of the wilderness is portrayed in the above photograph as the deer struggled to free itself. Mr. Ford said the animal broke one front leg and ruptured its intestines in its endeavor to extricate itself.**

# Nessmuk—Nature's Own

*(Continued from page 9)*

rough his contributions to *Forest and Stream.* I do not know the club is still in existence. The "Nessmuk Rod and Gun lub" of Wellsboro, E. H. Green suggested naming this organiza-on in honor of Nessmuk.

The Wellsboro High School's year book is called "The Nessmuk," his honor. This name was given to the school magazine in 30. Before that date had been called *The Rambler.*

The queer shaped mountain peak near Strait Run, one of Ness-uk's favorite camping sites was named Mt. Nessmuk in his re-embrance. This was suggested by the late William L. Shearer, iend and admirer of Nessmuk, and Paul H. Mulford, State orester, both of Wellsboro. The State Geographic Board ac-uiesced in the idea and a marker was erected on Route 6. This as destroyed in an automobile accident, several years ago, but e who are interested hope some day it will be replaced. Often very clear reflection of this mountain may be seen in the still aters of Marsh Creek. It is located in Shippen township opposite e old Marsh Creek railroad station.

In August of 1857, George W. Sears married Miss Mariette utler, to them three children were born, two daughters and a son. During one of Nessmuk's sojourns in Florida he was seized with alaria, from which he never recovered. He died May 1, 1890, at is home on Central Avenue, and was buried in his own yard, eath hemlock planted by his own hand. However, he was not remain there long and now lies in the Wellsboro cemetery, here his grave is marked by a sandstone boulder surmounted by a bronze relief of his benign features. It was the gift of thousands of his readers who had known him only through *Forest and Stream,* and when that journal gave opportunity for them to contribute to his memorial, the money poured in from every point of the compass, showing how widely he was read and how greatly esteemed.

After the death of Nessmuk there appeared from time to time, in *Forest and Stream* letters from subscribers telling of their grief for his death and their admiration of his writings. There were also two poems in his honor. The letters were from the following places—Worcester, Mass., Trenton, N. J., Ferrisburg, Vt., Tarpon Springs, Florida, Charleston, N. H., one from Capt. L. S. Beardslee of the U. S. N., and one from England, while the magazine, itself had a long editorial in his honor.

Nessmuk's widow survived him for 35 years, dying at the home of her daughter, Mrs. Jennie Boucher, in Galeton, on December 4, 1925, at the advanced age of 93 years.

Both daughters and the son have now passed on. The nearest relative now living in this vicinity is a granddaughter, Mrs. L. B. Taylor, who resides on Route 660, the road to Harrison State Park. I am indebted to her for some of the material used in this paper.

There are many more interesting facts that could be told about the life of George W. Sears, "Nessmuk," but this paper is already too long and I will close by reciting three poems from his book, *Forest Runes.*—Mazie Sears Bodine.

# Many Waterfalls in Pennsylvania

*(Continued from page 29)*

*Photo by H. T. Wieand*

**Scenic cascade on Griffin Run, Venango County.**

Laporte Quadrangle, this place is in Fairmount Township, Luzerne County, in the face of North Mountain, and less than two miles east of the Columbia-Luzerne-Sullivan County corner. Ganoga Lake and Mud Pond drain to Lake Rose, elevation 2,198, and it spills into Ganoga Glen. Lake Lehigh, elevation 2,188, is partly artificial and empties into Glen Lehigh. Each of these glens is about one mile long and they unite at 1561 feet, a fall of 600 feet.

Each glen has several waterfalls and cascades or combinations of the same from 25 to 100 feet high. Words are not adequate to describe their beauty. If the falls are named, I have not learned of them. From the junction down to the highway is a distance of 1½ miles and a descent of 300 feet to an elevation of 1267 at the top of Kitchen Creek Falls. These are below the road and are a combination of straight drops and cascades well worth seeing. A good foot path follows the whole length of the glen.

*Abraham Creek.*—It is reported that Abraham Creek makes a cascade of 10 feet over massive sandstone at an elevation of 1035 feet. This would be in the northern part of Kingston Township about three miles west of Wyoming.

**Lycoming County**

Cascades must be numerous in northern Lycoming County for topographic maps show many runs and hollows tributary to Lycoming, Pine, and other creeks that descend 500 feet or more in less than a mile, but none seem to be named or described in published reports.

**Mercer County**

In Springfield Township, Campbells Run, according to an old report, descends over the Connoquenessing sandstone half a mile east from the mouth, falling 40 feet in as many yards. This is thought to be Mill Run of present maps.

According to the same report, Rides Run in Findley Township makes a vertical plunge of 40 feet over the top of the Homewood sandstone at Crill's saw mill. The massive sandstone makes vertical cliffs along each side of the stream. Rides Run is not named on the Mercer topographic map, but would seem to be a small stream west of Pardoe near Cribbs School.

Dennison Run, one mile north of Leesburg, makes a cascade of 60 feet over the Connoquenesing sandstone about one mile above the mouth of the stream. This is called Springfield Falls.

*TO BE CONTINUED NEXT MONTH*

## Beaver Dams and Wildlife

*(Continued from page 10)*

dent that their dams create improved conditions for muskrats and other wildlife as well. Mr. Sheldon tells me that he has noticed more wildlife in the vicinity of these beaver dams than anywhere else in the surrounding area. During such times as these, when most of the small waterways are dry, the water behind these dams is a veritable oasis in a desert as far as wildlife is concerned." The drought had exposed some mud flats and lowered the water but the extent of its usefulness was well recorded in the abundance of tracks seen; they ranged from deer to song birds

During the muskrat trapping season, in the month of December, the trappers reported that the distribution of animals was noticably "spotted"; in some areas they appeared to have been reasonably abundant while in other areas they were scarce. Blame was placed on the dry summer and lack of water in many areas, and probably rightly so. From all of the evidence at hand, those areas where there were active beaver colonies yielded good catches of muskrats while many of the other areas did not. During the previous summer many of the marsh areas became mere mud flats but, in spite of the widespread low water levels, the beavers maintained sufficient water behind their dams to provide all of the requisites of good muskrat habitat.

In Northwestern Pennsylvania, at least, the beaver, through its activities, exerts a beneficial effect upon many species of wildlife:

1. By regulating the flow of water and impounding it behind dams it materially lessens the disastrous effects of drought upon all wildlife.

2. By impounding water to form shallow lakes and marsh areas, it thereby provides habitat suitable for many species of wildlife including the muskrat, gallinule, wild ducks, rails, and a number of other marsh-inhabitating birds.

## The Skunk

*(Continued from page 19)*

weasels often do the killing and the skunk receives the blame.

There is, in my opinion little that needs to be done in the way of a specific management program for the skunk. Practices entered into on the other wildlife management programs such as increasing the fruit and berry supply, cutting and thinning operations, and planting food plots, with the attendant increase of insect life, all will prove beneficial to the skunk.

As a result of scientific investigations

*Photo by T. J. Rice*

**Beaver Cuttings**

which have proven their true value, most of the states protect the skunk by a closed season for a portion of the year. Wise management of the open trapping and shooting seasons on this animal will tend to eliminate the objectionable features which occur under given conditions and will substitute some measure of control.

The trapper who receives a considerable monetary reward by catching skunks is a positive check against an unlimited increase of the species. The law of diminishing returns applies here, for when numbers are plentiful it pays well to trap, while when numbers decrease, less trapping takes place because of the lesser reward for the effort expended unless the market should be unusually high.

A tabulation of the numbers of skunk pelts placed on the market in Pennsylvania during the trapping season of 1938-39 showed 229,168 hides sold at an average price of 73 cents each or $168,861.18. The 1939-40 reports reveal a total of 321,893 pelts offered the fur buyers. At an average of 63 cents each these brought in $204,970.50. The skunk pelt is classed as the third most valuable pelt in the commercial fur trade. It is a very durable hide.

Pelts are divided into four classes by the commercial fur trade. The number one, or the so-called "black," has the white stripe cut off at the shoulder. In the number two, or the "short" classification, the white stripe runs into the middle of the back. These two classes are called the "blacks." In the so-called "stripes," the number three or the "narrow" is the pelt with narrow white stripes running the full length of the pelt; and in the number four, or the "broad," the stripes are the broad white stripes running the full length of the body. The "blacks" are considered the most valuable as these allow the better choice of cuts to the fur coat manufacturers. These cuttings vary in width according to the type of pelt and the style of the coat being made up.

Since the start of the war and the resulting scarcity of raw materials a new item of value has developed. The carcass of the skunk furnishes a great amount of the fat which could be used in the manufacture of soap and glycerine; thus, this by-product of the trap line could and will play an important part in our national defense problem if trappers and fur-dealers see fit to exploit it. See article page —.

The best season for taking skunks for their fur extends through the last week of November and the first three weeks of December. The animals must be fat and in good physical condition in order to prime. The prime coat can be determined in various ways—the texture and the weight of the skin, and the coloring of the skin on the fur side, tell the condition of the hide. An orange color denotes the prime, and a blueish color the unprime. However, an experienced fur man can tell "just by looking."

As for environmental controls and any land management practice, it is believed that wise setting of trapping seasons will keep the environment smelling much sweeter, the skunk will continue to be held in check, and at the same time provide a yearly surplus for the trappers' harvest.

# Some Economically Important Parasites of the Wild Turkey and Hungarian Partridge

*(Continued from page 15)*

THE GAPEWORM *(Syngamus trachea)*

Investigations have shown that domesticated turkeys are susceptible to infection with gapeworms at any age, and that these birds may remain infected for as long as 7½ months, in the absence of reinfection. As gapeworms were present in large numbers in the trachea of the three fully-grown wild turkeys examined by the writers, it may be assumed that the eastern wild turkey is susceptible to gapeworm infection and, therefore, may serve as an efficient "carrier" as the domestic turkey.

An extensive irritation of the wall of the trachea is produced as a result of the presence of gapeworms. In young chickens and domestic turkey poults, symptoms of coughing and gaping usually develop within 1 to 2 weeks following experimental infection by feeding to the birds embryonated eggs and larvae. Coughing is apparently the result of the irritation to the mucous lining of the windpipe. Gaping is usually accompanied by a quick jerk of the head forward and upward and an extension of the neck, indicating that the bird is not getting sufficient air. Sudden deaths, due primarily to suffocation caused by the mechanical obstruction of the trachea by the rapidly growing worms and the rapid accumulation of mucous, are often the result of infection with gapeworms. Older chickens are usually refractory to experimental infection.

Susceptible birds become infected with gapeworms by swallowing earthworms that have fed on soil contaminated with the droppings of infected birds, or by swallowing with the food and water the embryonated eggs and larvae. After the infective material is swallowed, the free larvae penetrate the wall of the intestinal tract and migrate by some unknown route to the lungs where they remain for several days before going to the trachea. It is in the lungs that the immature adults unite in a permanent pair or copula. Thus united, the worms work their way up the bronchi into the trachea, attach to the wall of the windpipe and begin to suck blood.

The most satisfactory treatment for the removal of gapeworms from infected chicks and turkeys is barium antimonyl tartrate. For treatment, the infected birds are placed in a closed box or other suitable container and exposed to the dust for about twenty minutes. One ounce of the powder for every 8 cubic feet of box space is sufficient to effect a cure. Detailed instructions for the use and preparation of this compound are given in Leaflet No. 207, United States Department of Agriculture, which is available on request.

THE TURKEY ASCARID *(Ascaridia dissimilis)*

This roundworm has recently been reported from the wild turkey in Georgia and Pennsylvania.

The life history is direct. The eggs deposited by the female worm in the intestine of the bird pass to the outside in the droppings. Under favorable conditions of temperature and moisture, the eggs become infective within 2 to 3 weeks. Birds become infected by swallowing the infective eggs with the food and water. Mature worms are found in the intestine in approximately 2 months after the infective eggs are swallowed.

*Photo by John Dittmar*

**Deer-proof feeder, often frequented by wild turkeys.**

No doubt, the use of the same feeding grounds year after year is chiefly responsible for the perpetuation of this parasite. The eggs of the turkey ascarid are probably very resistant to temperature and moisture changes, since the eggs of some closely related roundworms of birds have been shown to remain viable for long periods of time when subjected to fluctuating weather conditions.

THE GIZZARD WORM *(Cheilospirura* sp.)

A few specimens of this species were removed from beneath the horny lining of the gizzard of one of the wild turkeys examined at the State Game Farm near Honey Grove, Pa.

The slender, straw-colored worms are slightly pointed at the extremities. The mature female worm is one inch or more in length while the male is only about one half as long.

From our knowledge of the habits and pathology of the fowl gizzard worm *(Cheilospirura hamulosa)*, it may be assumed that the above-mentioned roundworm may, when present in large numbers, occasionally invade the muscular portion of the gizzard and form nodules. Such an invasion would cause the gizzard wall to become so weak that it might easily rupture, with ultimate formation of a sac or pouch.

The life history of the turkey gizzard worm is unknown. Probably it is similar to that of the related worm of domestic fowl, which requires an intermediate host in order to complete its development. In the United States, grasshoppers have been experimentally demonstrated to serve as intermediate hosts of the fowl gizzard worm.

Preventive measures already recommended in this article for the control of other nematodes of birds should be useful also in combating this parasite.

## The Panther in Pennsylvania

*(Continued from page 28)*

County, among the virgin timber, head of Ricketts' Glen. 1897. John Hoar, John Ramsey and others see tracks of panthers in Havice (Haweis) Valley, Mifflin County. 1896.

A panther comes on roof of John Hoar's lumber camp in Treaster Valley. 1895. Dudley A. Martin comes upon sleeping panther on "bench" on Bald Eagle Mountain, back of his home at DuBoistown. 1894. Clem Herlacher takes three cubs from nest in Treaster Valley, Mifflin County, the writer saw one of these cubs mounted at Herlacher's home, in 1897. 1893. Clem Herlacher takes two panther cubs from a nest in Treaster Valley, narrowly eluding the parent cats. 1892. Seth Nelson sees tracks of panthers in the Green Woods, on the Clearfield County divide. 1891. Dr. J. T. Rothrock "often hears the roar of the panther in Treaster Valley.

"The natives did not seem to think the sound unusual," he said. Also heard in '92, '93, '94. 1890. A panther crosses the road in front of the Clearfield-DuBois stage, just about sunset, as described by driver. 1889. A panther frequents the bark camp of the Emert Brothers, on Daguscahonda, Elk County, breaks open their box in spring, and carried off their fish. 1888. J. W. Zimmerman, when walking pipe line, near Union County-Lycoming County border, sees a panther at close range. 1887.

A panther shot on Pine Creek, near mouth of Slate Run, after it had killed several small dogs. (Reported to writer by caretaker of Lock Haven Water Works) 1886. County Commissioners pay reward on scalp of panther killed in Centre County, by John Lucas. 1885. A panther appears at campfire at Andy Wilson's lumber camp in Seven Mountains, looks over shoulders of hunters, "whose your friend with the mustache," says one of them. 1884. Jasper Bower tracks panther into Rhododendron thicket at head of White Deer Creek, Clinton County. 1883. W. R. Hoover, of Williamsport, tells of seeing Aaron Hall return to Unionville (Fleming, P. O.) with three large panthers, taken on Rock Run; the writer has two of the hides; the third said to be made up as a rug in Unionville (Centre County). 1882.

Aaron Hall finds three panther cubs in nest on Rock Run, Centre County; his sons gave the pelts to the writer of this article, 1914.

If after a scrutiny of the above, which is partly documented by newspaper clippings, magazine articles, written accounts, etc., one feels that the fact that as only one panther's scalp was paid for in the interval, the case for felix cougar must remain unsettled, yet the compiler of the above restates his belief that the Pennsylvania lion, likewise the wolf, sometimes still revisits his old haunts in Penn's Woods. HWS.

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"Now that hunting season is over let us not forget our friends who made our trips afield worthy. This is one of the times when our game really needs some help from us if they are to survive and reproduce that our future sport may be even better. Food in most parts this year is very poor and the help we give our wild birds and animals will pay big dividends later. Corn-on-the-cob is one of the best of all feed and most easily handled. If men take the boys along and show them the various tracks explaining them as they go along they will have done something worthwhile.

"Each person should have a pocketknife and cut small twigs, placing them six inches above the snow then stick his ear of corn on the twig that is left above the snow. One of the best places is along small streams and in places where grouse and other game tracks are seen such as sumac patches, wild ash. Corn so placed will not be eaten by grouse for four or five days, but go back over your same route ten days later and see what happens to your corn or other food.

"Last year after feeding 17 ringnecks in one place, a pine thicket, for two months the last time I put food there within one hour the birds were seen eating the corn. The reason for the corn on the cob is it very seldom gets covered up and often game once they start feeding it will be found very easily. This of course is for those who do not have any feeders already built. So don't let's just sit back and let "George" do our share. When we are being well fed so may our friends in the forest be fed also. The things you will see on the cover of snow will be worth your time and effort."—Sheridan P. Closson, Gallitzin, Pa.

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## Smoke Over the Poconos

*(Continued from page 21)*

mad fury free to run the forest. Helpless, we fought on, praying for more help.

Once, during the fire, I saw a rabbit trapped in the flames. So thin was the fire that I could see through it. The rabbit squealed,—a pitiful painful squeal,—and ran madly in circles. Then suddenly it stopped. It shriveled then as if trying to draw itself within itself, and burst into flames. And flaming, it squealed. It was a terrible, almost unbearable squeal, and I turned away. As I turned, I saw Old Pete, who fought by my side. His face startled me. There was a light in his eyes; the light of one who has seen—too late. His face expressed pain. One who loved animals as he! He tried to save the rabbit. But the flames drove him back.

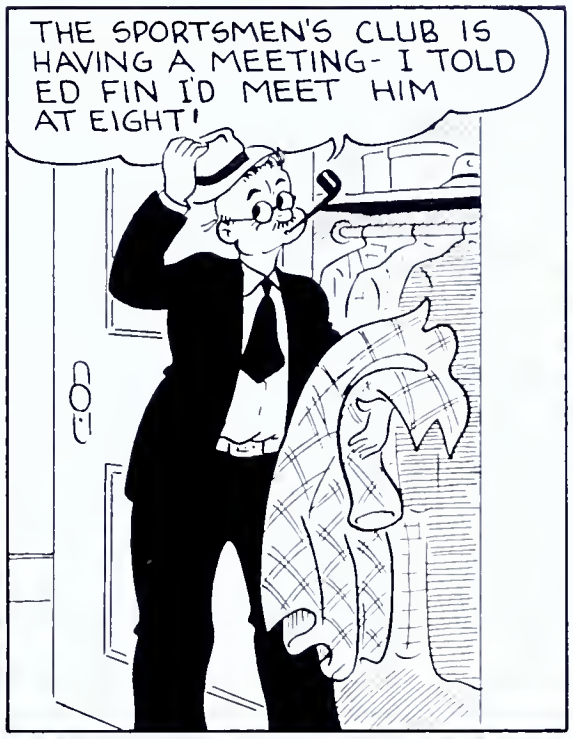
On—and on—wild, untamable, roared the fire! Crews came in from White Haven, Freeland, Bear Creek, Swiftwater, Effort. Traffic was stopped on the roads, and firefighters in business clothes were ordered to the job. And the reports came in—deer fleeing miles ahead of the fire, bear sighted on the run, grouse fleeing, rabbits fleeing. The fight went on into the afternoon, and it was then, near sundown, that the fire reached Long Pond settlement. In a few hours the fire burned to ashes what it had taken Old Pete and his neighbors a lifetime to build. House, barn, fields, everything—all in this mad inferno!

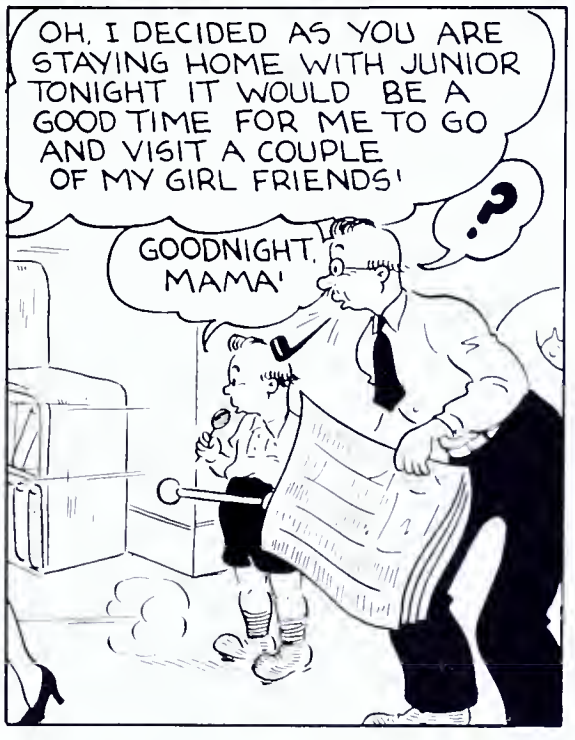
I shall never forget the picture. Old Pete stood on the edge of the flaming house. He stood silently, his hands by his side, his shoulders hunched, tiny wafts of smoke curling from his dirty, torn corduroy trousers. Tears streamed down his cheeks; and in his face, in his wind-scarred, age-lined face, there was a pain so deep that it defied description. "My fathers were wrong," he said. "If it's in my power, never will a fire be started again!" And after this, Old Pete returned to the fight.

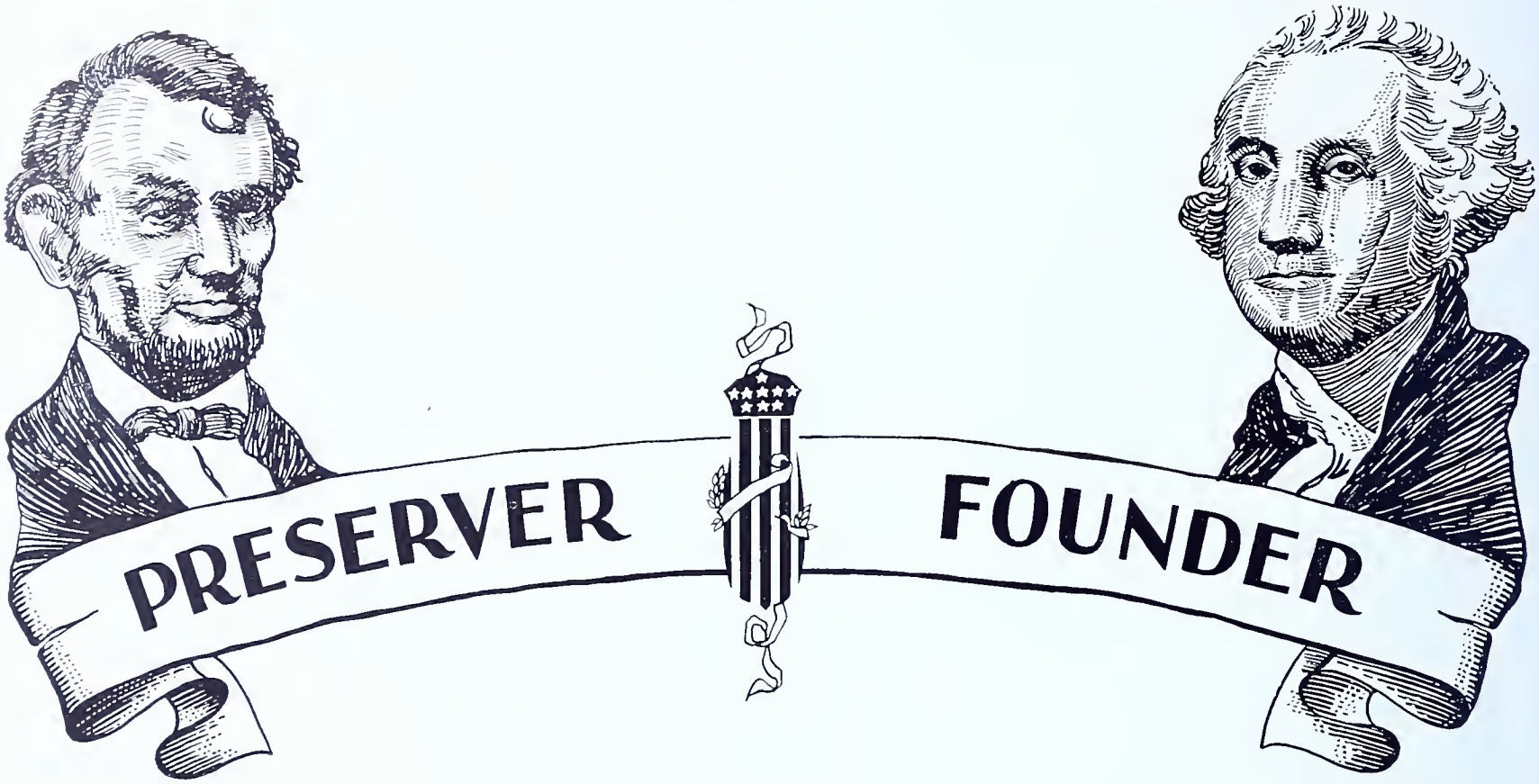
More and more crews arrived. The fire raged on into the night. Flames roared into the blackness, all during the night; and it was only near dawn that a backfire was launched and the flames brought under control.

Today, many years later, there is still nothing but scrub oaks and a few dwarfed, sickly pines in the section where Old Pete lived. But over these silent wasteland acres, there is a spirit, and Game Warden Hooks Gentry might tell you about it if you stop at Oss Dotter's place sometime along the Pinchot Trail. He'll settle back in his chair and sigh over his evening beer. "No, it ain't me stopped these terrible Pocono fires," he'll say. "No man could've stopped 'em but a native. No, it was Old Pete stopped 'em. Old Pete, he preached the gospel. You know, I swear if you sit on top o' Pimple Hill some night when the wind is up and whinin', you can hear Old Pete, off there in the night, sayin' 'I lost all in a fire. I learned my lesson. Don't be a fool!' Yessir, I swear I can hear it. An Old Pete bein' dead these six long years!"

# THE FAMILY OF A. HUNTER, ESQUIRE—EPISODE NO. 23








Washington and Lincoln are synonymous with the spirit of America. The founder and the preserver! As Washington was the inspiring force through which the Republic was established on a bedrock of freedom so Lincoln was the guiding hand which led the Nation through its darkest days to eventually weld the states into a more perfect Union. These men were reviled and bitterly attacked by the press and public opinion of their day but they were deeply inspired by the cause for which they fought. They were so inspired in fact that their results have shone forth as a beacon to all the nations of the earth.

These men speak to us through the dimness of centuries. What do they say? They say to us that sacrifices must be made from generation to generation to preserve that for which they fought. We call on the words of these men in times of crises to provide us with the inspiration and wisdom to carry us forward. Their words live again today; the memorable words of Lincoln at Gettysburg and Washington at Valley Forge keep ringing in our ears.

But their words alone will not suffice. We cannot live in the past. These men are dead and we, ourselves, must carry on. Tradition in itself is a bar to human progress. The human spirit will not die for Man walks up the stairway of his intellect and emerges above himself in the social consciousness of mankind. A future world facing the reality of man's right to live at peace with his fellowmen and without discrimination as to race, creed and color is the lofty goal and noble purpose to which we all aspire.

That which is worth living for is worth dying to preserve. So, today, we Americans must realize that this is a people's war. That means you and I must make our physical and material contributions in every possible way so that in the words of Lincoln "these men will not have died in vain."—Stanley Cooper.

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VOL. XIII, NO. 12

# EDITORIAL

MARCH, 1943

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Cover by Jacob Bates Abbott

☆

## *TONGUE LASHING*

This is the time of year when tongue lashing is in vogue. It starts with Congress, new assemblies, the beginning of housecleaning and every other good American activity. Baseball managers are out tongue lashing their prospective teams, some housewives won't give their husbands two minutes rest from carpet beating to cellar cleaning, and in the end law makers, families, baseball teams, and all the rest shake hands and go home happy in the thought that men are created equal, they can do what they please, until somebody stops them, and that America (and Pennsylvania) is still a good place to live in—even if we never get any more gasoline.

But all this has no bearing on the subject at hand—only the title has. We're thinking of the red hot, darting tongue lashing that our wildlife is subject to in the Spring of the year. We're thinking of the farmer's annual job of housecleaning (burning) his fields. We wonder if they know how useless it all is from the standpoint of agriculture—how terrible from the standpoint of wildlife—that burning flesh and bones of wild creatures destroyed—for nothing. If this so-called Spring housecleaning of our landowners really helped to improve their pastures and woodlots it might be tolerated to some extent. But it doesn't. Fires are set usually to improve woodlots and pastures, to clean out fencerows, to kill weed seeds, and to burn trash off the land. We can see some sense in the latter type of burning if the trash is carefully raked into one or two piles and burned while under control, or dumped in an old gully where it can provide cover for wildlife, and help stop erosion.

But for the rest, we still think it is ridiculous. Experience and research, for that matter, have proved that pastures aren't improved by fire. The grass may look a little greener during the first couple of growing days in the Spring, but think of the cost. All the organic matter on top of the soil and the partly decomposed leaves, grass, etc., with which the soil is enriched is destroyed. Young tree seedlings and the mulch floor of woodlots are destroyed by fire. A good likeness unto this particular type of destruction was expressed in the "Iowa Conservationist" last year, which we quote:

"Fire leaves our woodlots in a condition similar to a community of old or middle-aged people with no children. When the older people are gone, there is no one to take their place—when the old trees are gone there are no young trees to take their places. The destruction of this spongy mulch material on the ground of woodlots, plus the loss of the trees, causes soil erosion, especially if there is any slope to the land whatsoever."

But the woodlot fire, the grass fire aren't always the stopping places. Many farmers burn regardless of time or place. Fires get out of control, sometimes outbuildings and even homes go; sometimes other people's buildings and homes, not their own. Fires in fields near mountain areas may assume tremendous proportions and result in staggering losses of timber, wildlife, homes, even human lives.

**Don't let needless fires give our wildlife a "Spring tongue lashing."**

Photo by Delbert Batcheler

This is a picture of LUNDEEN with a member of the U. S. Coast Guard, guarding a point on the Atlantic Coast. LUNDEEN was given to the Service by Mrs. Geraldine R. Dodge of Madison, New Jersey, whose Giralda Shepherds are so famous. Mrs. Dodge has enlisted a number of her dogs in addition to LUNDEEN, and is also breeding bitches for this vital war effort.

Any readers of the GAME NEWS who can see their way clear to taking a bitch in whelp, and, either raising the puppies until they are weaned, or taking the puppies when they are weaned and raising them until they are a year old, should write to W. Newbold Ely, U.S.C.G.R., Ambler, Pennsylvania, stating which they can do, and how many dogs they can handle. All expenses will have to be borne by the person taking the bitch or the puppies, although many veterinarians are patriotically donating their services.

# WITH THE BOYS IN THE SERVICE

"I am sorry to hear Frank Crosby has een ill. Sure hope he is as good as new by ow. Be sure to tell him I said hello.

"No doubt you know Bob Lichtenberger is t Fort Custer, Michigan, at the O. C. S. chool. He will sure make a fine officer. Brother Bob should graduate from there on anuary 15th if all goes well.

"We had a very nice Christmas dinner. I eceived a lot of gifts. Just too much candy nd cookies for my own good. The packges are still coming in for the boys. I reeived one today that had been mailed on ecember 16. Guess that is service.

"At present we cannot get any ammunition or the Cadets to shoot skeet, due to the hange from brass base to steel. While we ave the layoff we are fixing up the range. Ve have five ranges here and we are reairing them all. Giving them three coats f paint and I am doing it all alone as well s the repair, so you see I'm busy all the me.

"Sure hate to think that I will have to pend my days here teaching Cadets. I am till the Tommy Gun and 45 pistol instructor as well as skeet. You sure would be urprised just how many Pennsylvania adets that have never fired a gun. Some ere now from Reading and vicinity. They re quite a group of boys.

"There is no use for us to kid ourselves bout this war as it is a young man's war. f you think I am kidding you should see hat the Cadets have to go through here.

"Give my best to the boys and tell Leo said put a line in the GAME NEWS to thank ll our boys for sending me the Christmas ards. They sure did remember me on hristmas."—Corporal J. L. Latimer, 431st .E.F.T.S. Napier Field, Dothan, Alabama.

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"As you probably notice my address is hanged somewhat. I finally ended up in he tropics, and like it better here than I xpected. I've been in more uncomfortable laces.

"In digesting the contents of a recent isue of *Outdoor Life* magazine (and believe he I really 'digest' one of those scarce magaines now) I was pleased to find photos of he pheasant hatchery we visited last winter. also found in another issue a Pennsylvania eer hunting story in which Bob Latimer's ame was mentioned—a story of the season f '41. It certainly makes one feel 'right at ome' to stumble on to something like that. o far I noted one plant here that grows plenty up there. When I was a kid we ould use the juice of the berries to write ith in place of ink."—Pvt. Martin L. haffer, Co. B, 33d Inf., A.P.O. 870, c/o ostmaster, New York, N. Y.

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"Army life has been really swell. It reinds me of the Game Commission Training chool. Something new and different each ay.

"I spent three weeks at my reception cener. This was unusually long, but I got some ood instruction which helped me here at amp.

"I am in an infantry training battalion, a

A. Clinton Ganster

heavy weapons company. Have had bayonet, hand grenade, rifle and revolver instruction, plus many other phases of army work. We fired the M-1 (Garand) on the range. I had a 89 x 100, prone position 200 yards, slow fire. I was a coach and received a big thrill as I qualified all my men and was presented to the C. O. for my work.

"We fired the 45 cal. revolver and I was high for the company, also coach. Missed up on my rapid fire. In the army you must come to raise pistol after each shot, and I was confused. I had a 164 x 200, 120 is qualifying. Was made Acting Corporal and squad leader. The army has been good to me—I am grateful. Am 'Charge of Quarters' today thus the time for writing.

"The above all adds up to one thing: My past experience and training. Thanks to you and all responsible, the Pennsylvania Game Commission has made me a better soldier.

"Weather has been marvelous. We have not lost more than a day in three weeks because of rain. It feels like November in Pennsylvania.

"Regards and best wishes to you and all the boys in the field force."—Pvt. Robert Parlaman, Officer Candidate Preparatory School, 40th Battalion, Camp Croft, South Carolina.

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"I am keeping up my end of the bargain by replying at the earliest possible moment to all letters I receive. You can't imagine what a bang I get out of hearing from you swell guys at work. Wrote Johnny Hoover a few days ago. Thanks for sending the list of the boys in the service. We sure are scattered over the map.

"Your Christmas party sure put our feeble attempt to shame. How come no venison at the dinner??? Can't the boys hit 'em anymore or do you need that famous club formerly wielded by Bill Miller, civilian, now G. I. "Sarge Miller." Gosh, when we all get back and someone lets out a bellow for "Sarge" we'll never know just which one he means.

"Darn good idea that of getting the hunters to salvage their deerskins. Don't need them here but I suppose the boys in Alaska and similar places could use them.

"I've told all the boys here about the hunting we have at home. Of course those of us fortunate to be from Pennsylvania don't need to be told. But the thing that worries me is: How in the heck I can get them all those complimentary licenses I've been asked about???

"Looking forward to receiving the GAME NEWS and saying hello to all the gang, I remain, your sun-kissed pal, Sgt. Robert D. McDowell, A.S.N., 33,011,498, Hq. Det. S.O.S., A.P.O. 625, c/o Postmaster, Miami, Florida."

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"This being my turn at the "charge of quarters" assignment, what better time to dash off some correspondence? After my initial stay at Fort Meade early in October, I was sent directly back to my induction point, Greensburg. Being listed "limited service" because of my bum arm, there seems little in store for me in the way of the wanted action. Guess I am getting one big break, since it must be this kind of work, being placed so near my home. Was on recruiting work until that folded up recently. Now I am with the "traffic" group at this induction station, routing inductees, securing transportation, taking them to meals while here and arranging for their meals enroute, etc. Not too bad.

"The Major had me doing considerable public speaking for the post, and representing it at various functions. Now we are recruiting WAAC people! Woe is me—I fear hinted assignments to talk to women's clubs, etc. On order, I dood it, however." —P.F.C. R. D. Reed, PNG Armory, Greensburg.

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"I have been here in the State of Kansas for three months, having been assigned to this Post at the time I finished Officers' Candidate School at Fort Oglethorpe, Georgia, on September 25. I am stationed at the Military Police Replacement Training Center as Company officer and instructor of one of the training battalions. The trainees assigned to this center receive eleven weeks of basic Military Police training. My duties here keep me quite busy most of the time.

"I wish to take this opportunity to express my appreciation to the employes of the Game Commission, for the many Christmas greetings which they sent me. Somehow it seems that Christmas greetings meant more to me this year than ever before."—Lieut. David R. Titus, Company E, 27th Battalion, M.P.R.T.C., Fort Riley, Kansas.

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Within the past few weeks we were also glad to have calls from some of the boys fortunate enough to get home on furlough; for instance First Lieutenant James N. Morton who is still at Colorado Springs, and 2d Lieutenant Robert Latimer, who by the way was married recently. "Clint" Ganster is now in the service, but we have not heard from him yet. Had letters from Dick Gerstell and Gordon Krieble which we'll pass on next issue. They came too late for this one.

Many kinds of aquatic plants are relished by deer.

# The White Antlered Buck

BACK at about the time when I was at my most impressionable age, deer stories flavored with a strong dash of the supernatural were extremely popular fare. Singularly, most of the yarns which I avidly devoured, usually had as their locale some abandoned lumber camp back in the rock ribbed fastnesses of wild mountain country.

One of the most impressive stories was woven about a particularly sagacious and gifted buck and the dire consequences befalling the unfortunate huntsman who brought him down.

The "phantoms" were invariably albinos, but in this case the animal was a solid, glossy black with the exception of but one small part of its anatomy. You've doubtlessly guessed it. Yes, its noble antlers were a chalky white. Furthermore, the Indians and the few bush whacky whites who had seen the magnificent creature considered him big medicine.

Naturally, those tall tales made their proper impression on what Mother termed "a too plastic mind;" her eternal plaint being, "Will it ever jell?"

On my first deer hunt I momentarily expected a noble buck to step from behind most any tree and "disdainfully and arrogantly" stamp a mean hoof. Then, of course, I would go into my act and lay it low with a well directed slug. Didn't the youthful nimrods or the equally efficient hawkeyed old timers always get their stags?

However, after I had trudged the snow covered, perpendicular hills for the better part of a day without so much as seeing a single animal (and that's all inclusive), my respect for the deer clan rose proportionately.

That wholesome respect not only remained but increased with the passing years. In those five or six years that I hunted in my native heath, I saw plenty of deer but was never so fortunate as to get a shot. The only time I was presented with a real easy mark, I yelled to my companion who was some distance to the rear, pointed at the rapidly retreating animal and cried, "There he goes!"

"Why didn't you shoot?" breathlessly inquired my companion when he finally caught up with me.

My jaws dropped and I stared at him in blank amazement. "By golly, I forgot," I finally managed.

The scene changes. About a decade and a half ago I was on my first hunt in the Pennsylvania hills, a grouse hunt to be specific, in the vicinity of Kelletville in Forest County.

To me that day was a revelation. I had never before seen so much small game. No, not even my native granite hills could boast of that much. On every hand we put up prodigious numbers of varying hare and grouse. For example, we flushed nineteen of the latter in less than an hour.

Upon starting out that morning my companion said we would see a lot of deer; that, indeed, the country was being overrun by the prolific animals at the expense of the smaller game.

I admitted that I knew something of Pennsylvania's reputation as a deer state.

Actually, however, in the course of that morning I failed to see a single one of those supposedly plentiful whitetails. At lunch time I voiced my complaint.

"I thought you said that this country was lousy with deer?" I asked a little dryly, using his exact words.

I won't soon forget that moment. We were seated on a big windfall just below the brim of the flat top of one of those stupendous mountains which he unblushingly called a hill.

My pardner had just lifted his Thermos and now paused with it half way to its destination. "It is," he earnestly began. "Why, back in Buzzard Swamp—."

He never finished the sentence. Up above us we heard the sudden crash of brush and two deer came tearing down toward us as if a troupe of banshees were at their heels.

One of the frenzied animals, a sizable buck, seemed intent on running me down. Anyway, he was dead on the beam.

We scrambled to our feet, wildly waved our arms to the accompaniment of loud whoops and succeeded in turning them. At that, the big fellow passed closely enough for me to plainly see the whites of his wildly rolling eyes.

After they had passed well out of hearing, my companion uttered a single significant grunt and retrieved his bottle.

When really hungry, deer pay slight attention to intruders.

*By N. R. Casillo*

Favorite haunts of the whitetail are never far from water.

"Well, there was a couple," I pronounced with what equanimity I could manage.

The respite was brief. We had scarcely composed ourselves when there sounded another crash. Again we turned our eyes toward the plateau. This time there were five or six animals. They had cleared a thicket of hemlock and were now bouncing gracefully along through the comparatively open hardwoods.

I said no more, but resolved on the spot that this would be the scene of my deer hunt come open season a couple of weeks thence.

On the following week end I was one of a group of four bird hunters who spent the night in one of the still standing buildings of an old lumber camp located a mile or two north of Buzzard Swamp. We had been overtaken by darkness and came upon the doubtful shelter as we wandered more or less aimlessly over a considerable part of the country. Yeah, we finally broke down and admitted to each other that we were lost.

I won't go into the details of that cold night following a repast of roasted, unseasoned "jackrabbit" as tough as seasoned hickory. Nor shall I ever forget the difficulties of mastication that Chet Bauder experienced when he attempted to sink his new store teeth into a hunk of the tough, old hare. Anway, he had the good sense to finally succumb to the toothsome succulency of one of his two grouse. The rest of us stomached the hare so as to keep our grouse bags intact to take home.

Next morning at daybreak when I stiffly stumbled from the cabin I quickly forgot the night's discomforts. And no wonder, for the first thing that I spied was a bunch of eight or ten deer nervously trotting at the edge of the clearing. As near as I could determine, all were either does or anterless bucks, that is, all but one. That one was a buck that commanded insistent and immediate attention.

No, he didn't sport antlers like those of the *Monarch of the Glen.* Indeed, I could make out only eight points and the horns weren't especially heavy. But, mark you, that solitary buck positively looked black in the uncertain light. What's more, the symmetrical antlers were a ghostly white.

And there you have it. At once a score of long forgotten memories piled in on me—phantom deer, albino bucks, the curse of killing one et al. Why, here in the flesh was the counterpart of that fictional phantom of long ago, he of the big medicine. I called the gang and we watched the regal animal for five fascinating minutes.

That morning, after we headed off a searching party and calmed or appeased frantic or irate wives via long distance, we four resolved that we would return to the very spot and bag that unusual buck. Anyway, one of us would.

So, there you have the background for this tale of the white antlered buck.

In the meanwhile, the tales of Pennsylvania deer hunting with which I was regaled plus the numbers of deer that I had already seen, tended to lower my guard. My companions made it all too obvious that most any one who could shoulder a gun (and that didn't necessarily mean that he could use it), could bag his buck. They assured me that even city slickers who had never before seen a live deer, frequently returned with game.

"Oh, now and then they'll pot a cow or even a bonafide hunter," cheerfully added Chet as he shoved the last of the duffle into the car's baggage compartment. Yes, we were all set to invade the deer country.

That evening, the quartet consisting of George Short, Chet Bauder, Bill Klee and I was comfortably quartered on the first floor of that deserted structure that had so lately provided us with emergency shelter.

Now that we could make a more leisurely inspection, it was easy to see that the building (apparently having served as some sort of a storehouse), was in an excellent state of preservation notwithstanding its obvious age.

The second floor, accessible via a squarish hole, seemed sound. Signs of woodmice and porcupine were plentiful, the latter doubtlessly gaining access to the loft through the rear window, for the long departed sill of the latter would have nearly touched the overhanging top of a tree-covered boulder against which the cabin nestled. The other window was at the front of the room and overlooked the clearing.

Before nightfall we explored the immediate vicinity, saw a multitude of deer signs although there was no snow, and even saw several animals, all antlerless.

From our very cabin door we could see the blinking lights and hear the distant roar of a continuous line of cars on the road running along the top of the most

*(Continued on page 24)*

Bill Klee on watch near a deer pass.

# The 1942 Flight of Woodcocks

**By Logan J. Bennett, Biologist, U. S. Fish and Wildlife Service and P. F. English, Associate Professor Department of Zoology and Entomology, The Pennsylvania State College**

SINCE the spring of 1939 various workers with the Pennsylvania Cooperative Wildlife Research Unit have checked the spring flight of migrating and breeding woodcocks in Centre and Huntingdon Counties, Pennsylvania. This was done in an effort to determine trends in the breeding population going north after having gone through the shooting season and the vigors of winter. The birds suffered severe losses on the wintering grounds in Louisiana and Mississippi during the winter of 1940. They have been recovering slowly however since that time. The information obtained in Centre and Huntingdon Counties was used along with information from other states by the U. S. Fish and Wildlife Service in determining length of shooting seasons.

During the late summer and fall of 1942 the writers decided to check closely the resident and migrating woodcocks in Centre County, Pennsylvania. It was thought that the information derived would throw more light on the degree of recovery from the 1940 winter as well as provide the Pennsylvania Game Commission with information on dates that woodcocks migrate through central Pennsylvania. Such information would be of use in determining shooting season dates, bag limits, and length of shooting season.

The area in which the 1942 late summer and fall census work was conducted was the Bald Eagle Valley between Bellefonte and Tyrone. This area is approximately 30 miles long, much of which is used by breeding and migrating woodcocks. There are two main cover types in the area used by woodcocks. The alder bottom cover along the Bald Eagle Creek and the wild crab apple-hawthorne thicket cover on the mountain slopes. The acreage of the wild crab apple thicket cover type is much greater than the alder bottom type.

The field work was begun August 21. Well-trained woodcock dogs were used to locate the birds.

The birds located from August 21 to the middle of September were assumed to be resident birds. In the good hillside wild crab apple-hawthorne thickets there were about one bird to ten acres and in the bottom alder thickets there were about one bird to four acres. In some cases in both types it ran better or poorer. The above figures are considered to be average. Thus the area is a good breeding territory.

The first signs of fall migration were noted September 15-16 when many birds moved out of the area. On the night of September 16 there was an influx of birds into the valley. The good cover on the hillsides and bottoms averaged about one bird to 12 acres. In small acreages the figures ran higher. This light migration kept the coverts at about the same population density until October 6. During the night of October 6 the first big flight came in. The coverts carried from 3 birds to the acre to one bird to six acres from that time through October 11. From October 12 to 15 most of the birds migrated out of the area. On the night of October 15 another good flight came in. The population ran from 2 birds to the acre to one bird to six acres. These birds remained until the night of October 19 at which time they left. From October 19 to October 21 only a few birds were present—about one bird to 50 acres.

The night of October 23 a medium flight came in. The following morning (October 24, opening of Pennsylvania season) there were about one bird to 12 acres in the coverts. On the night of October 23 or the night of October 26 more birds came in raising the population to approximately one bird to 6 acres. This population was maintained until October 29 when it dropped. From October 30 to November 4 the population was about one bird to 12 acres. November 5-6 it dropped to about one bird to 30-35 acres. Thereafter it continued to drop until by November 18 only straggling migrants were observed.

This discussion of resident and migrating woodcock populations is summarized in the following table.

RESIDENT AND MIGRATING WOODCOCKS IN CENTRE COUNTY, PENNSYLVANIA
Fall, 1942

| Dates | Acres per bird | Remarks |
|---|---|---|
| 8/21-9/15 | 4 to 10 | Resident |
| 9/15-16 | Few birds | 1st migration—many resident birds moved out |
| 9/16-10/6 | 12 | 1st incoming birds |
| 10/6-10/11 | 1/3 to 6 | Big flight |
| 10/12-10/15 | Few birds | Moved out |
| 10/15-10/19 | ½ to 6 | Big flight |
| 10/19-10/21 | 50 | Most moved out |
| 10/23-10/25 | 12 | Fair flight (Season opened Oct. 24) |
| 10/25 or 26-10/29 | 6 | Good flight |
| 10/29-10/30 | 15 | Some moved out |
| 10/30-11/4 | 12 | More moved in than out |
| 11/5-6 | 30-35 | Poor hunting |
| 11/7-18 | Very few birds | Season closed Nov. 7 |
| 11/18 on | Stragglers | |

The month of September was about as normal as could be recorded. October was somewhat warmer than usual. The two heavy flights were noted on October 6-11 and October 15-19. One fair flight occurred before October 6 and one good and two fair

*(Continued on page 31)*

[1] Paper No. 40 from the Pennsylvania Cooperative Wildlife Research Unit, Fish and Wildlife Service (U. S. Department of The Interior), The Pennsylvania State College, the Pennsylvania Game Commission, and the American Wildlife Institute cooperating.

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Photo by R. T. Leiter.

Pennsylvania was the first State to protect the black bear in 1905. In 1925 cubs were given protection.

# THE BLACK BEAR,*

*By Martin L. Shaffer*

EUARCTOS americanus, or the common Black Bear, is native to this State, and can be found throughout much of North America, in the forested areas, wherever there are suitable conditions for its existence.

Along with the white-tailed deer it has furnished very enjoyable big game hunting. A large black bear will weigh, in some instances, over five hundred pounds. The largest specimen on record killed in Pennsylvania weighed six hundred and thirty-three pounds, and was killed near Milford, in Pike County, on December 4, 1933. The average weight is around 175 pounds. The average length of an adult bear will be around five feet, this measurement being taken as the animal stands on "all fours." Occasionally one of the "Cinnamon" color phase is seen, but, as the name implies, the color is generally black. The color is darkest in the late summer, but the pelt is best in the spring of the year. The winter coat is shed from May 1 to August 1. A good bearskin, at prices prevailing during the winter of 1933-34 was worth about $1.50. In the earlier days, the British Armies wore caps made of bearskin.

During the mating season the male and female run together for about a week, then leave each other, and the male probably remates with several others during the season. Their breeding season is usually in early June although they sometimes breed later. Bears are the slowest breeders of our American Big Game. Black bears do not breed until about 3½ years old, although the female is capable of being bred sooner. Black bears do not obtain their fullest maturity until they are seven years old. They have been known to reach an age of 24 years, in captivity. Bears breed only every other year, unless the female has had the misfortune of losing her family early in the summer. One of the chief reasons they seldom breed and rear young in captivity is due to the lack of satisfactory seclusion for the female. A pair of bears in the Akron Zoo produced 34 cubs over a period of 21 years, all of which survived except those lost by accident, and one by disease.

The gestation period of the black bear is 7½ months, or 225 days, the young being born the latter half of January. The cubs born to the bears in the Akron Zoo all were born between January 21 and 27, except two litters; one of these arriving February 1, the other one or two days earlier. The average litter is two, but may be one to four. The first litter is generally one, as with deer. The cubs are born blind, naked, and toothless, their eyes opening at the age of forty days. No American game animal gives birth to smaller young in proportion to the size of the parent than the black bear.

Cubs weigh from 8 to 18 ounces, depending on the size of the litter. They leave the den at 10 weeks of age, and get their first solid food when the snow leaves the ground. They are weaned in August. The teats on a female bear are grouped as follows: one group of four on the chest, the other group of two on the belly between the hind legs. These latter are used, it is supposed, when the young are in the den, and the others when the young are able to follow the mother. Cubs are believed to run with their mother until the breeding season of their second summer. They are also believed to spend their first winter after their birth near the mother in hibernation.

The black bear changes haunts with the seasons, depending on the kind and quality of food available. In the spring, it goes to the lowlands, living on the tender roots and plants found there. In the summer it spends most of its time in the swamps, where it wallows in the mud much the same as a domestic hog. Later it seeks the available summer berries, then in the autumn goes to the uplands where it can find nuts, grapes, etc. Sometimes they fed on corn on farms near forest areas. As far as the cruising radius is concerned, the only available information is that an Indian guide in Canada, followed a large male bear on several different occasions, finding it to go fifteen miles from its home.

Black bears will eat almost anything they can get. Water is obtained with the food-succulence, but they do drink copiously, eating but little, when they emerge from winter hibernation. It has been said that no animal, of like size, can live on less food, and at the same time, eat more when it is available. Their diet is made up of miscellaneous items—roots, berries, fruits, nuts, grasses, frogs, toads, bees, other insects, honey, sheep, hogs, cattle, poultry, in short, any bird or mammal it can catch. Berries

(Continued on page 30)

* Written while a student at the Game Commission Training School.

# The Log of

Photo courtesy R. M. Baker

**The old winding road.**

**Bill Gormley, an addict of Rattlesnake Shack.**

MARCH is a month of surprises when you play at weekend shackateering and anything may happen. Our temperatures varied anywhere from 6° below zero to 62° above, although most records during the month ranged close to the 30's. These vacillations of temperatures, weather and conditions might each become a bogie and pop out at you without the least warning. To be caught napping is the rule instead of the exception in March and we have had our experiences.

One weekend (March 6, 1932) and the usual Saturday pilgrimage; a fine day and spring in the offing! It was time to "flower pot" around, speculate on landscape gardening and remove the winter litter. All went well until toward evening, when in the midst of busy potterings a few snow flakes appeared in the air. Soon a change of temperature became apparent and lowering clouds drew ominously together over the valley. The wind, so lately mild and balmy, began to roar through the bush and swept hoarsely on its way. The air became suddenly snowfilled and all was a hazy blur, while the forest trees shivered and groaned. The big blizzard was upon us.

Steadily Old Mother Earth was pelted with snow and likewise her unsheltered children. The trees soon laden and heavy with clinging snow, bent their heads in elastic submission or broke in brittle resistance. Continuous reports, the thumps of falling branches and the crash of dead trees as they toppled to earth, could be heard, even above the roar of the storm. All night and into the next day it snowed hard, while the storm raged continuously; and like the hibernating creatures, who in snug retreats rested hopefully, the denizens of Rattlesnake Shack, cut off from the world and all, enjoyed the experience with expectation and awe.

Several extra days at camp and the food supply getting short! Finally pancakes and honey, with oatmeal for desert, the snow deep and the old winding road unbroken! It was one of a number of times when we were marooned and unable to leave as planned. Down trees, deep drifts and icy hills added on many occasions to the thrill of shackateering, when the winding, hilly road was just as impossible to navigate as though it had not been there. There are times when the soltitude of our shack and the little clearing might resemble the outpost in the far places, a thousand miles from anywhere; when the snowclad valley and mountain, silent and majestic, the air brittle and sharp in the winter cold became a menace to any who venture away from shelter.

Early in the month game and bird feeding is continued. The gray squirrels now friendly and more or less tame, came in batches of 15 or more. Fleeting glimpses of all the local animals may be caught in the vicinity, while their tracks also leave clues to their identity. Deer are observed from the window, as they timidly question the advisibility of approaching closer for some of the feed, or may be seen in shadowy form as they flit among the forest trees below the camp.

We have a long list of birds for March in addition to the usual winter species. Among the latter that deserve honorable mention, are those winter comrades now gathering in flocks for their trek farther north, together with the new arrivals who are just passing through; these activities are symptoms of spring just around the corner.

Fox sparrows in flocks stop off to sample from our feeding stations. They travel up along the ditches and little streams, "worrying" among the leaves and debris exposed by thaws, looking for those luckless bugs who choose this situation for hibernating quarters.

Orange and golden-crowned kinglets add their dash of color to this general scheme, while flocks of purple finches and pine siskins stop to investigate. Hawks swing into view and occasionally snatch a victim among the smaller birds, gathered in innocent revelry around the feeders; the crows become bolder and try to crash the grub line, while bluejays in their striking color pattern spend a few days scolding in the tree tops. Then come the robins, song sparrows, flickers, blue birds, black birds and doves in flocks.

About the middle of the month, the wild geese on their way north call to us as they pass; and down the valley all the available snags in the open fields of the Bayard farm, hold groups of buzzards. We observe these scavengers early each Monday morning on our way out to work. Later in the day they will take off

# Rattlesnake Shack

Mourning Cloak Butterfly.

*By A. B. Champlain*

EDITOR'S NOTE: This is the 9th of a series of Nature Stories by Dr. A. B. Champlain, State Entomologist.

on the wing to survey the landscape, in search of such tidbits as appeal to their taste.

Late in the month our Phoebes appear and then we feel sure that spring has arrived. Wood ducks are sometimes seen on the creek (March 29) while an occasional pair of black ducks drop into our territory, to raise a family on Clark's Creek. Now Grouse may be heard drumming and we see an early gartersnake on sunny days.

Mosquitoes get awake as March nears its end and the black flies or Buffalo gnats begin hatching from the stream. Also the hibernating butterflies, such as the Graptas and the Mourning Cloaks, emerge from their winter naps and search for sappy trees.

Now those harbingers of spring, the earliest wild flowers make their appearance. The skunk-cabbage takes its place as pioneer of the swamps, with the hepaticas running a close second, or was it some other bloom? Daffodils begin to open, the Red Maples sport their true colors along the bottom land, the alders hang their tassels in the wind, and along the stream and in the swamps the yellow gold of the marsh marigolds or cowslips attract the eye. A few more days and the wild wood will be teeming with new life and we will get out the hoe and rake. Amidst the buzzing black flies who sometimes persist in getting into the eyes and ears and the peeping green things that stir the imagination, we attempt to beautify. Soon the hard look of winter will be wiped off Mother Nature's face and the browns and grays will become greens and gold.

Among the guests of Rattlesnake shack of early days was our friend, Bill Gormley. Upon many occasions he would drop in for a day, a week or a fortnight. Back in March '33 or thereabouts Bill landed in town and announced his intention of roughing it at the shack for several weeks as time was heavy on his hands. Just to show how the fates prescribe, we jot down a few records he made over the period spent at camp. It might be entitled—observations on the elements.

"Out Sunday 5th. Temperature 18° when I arrived in the evening. Made fire. Heard some funny yelping in bottom.

"March 6. 25° inside shack in morning. Everything frozen including bucket of water on stove. Made fire and breakfast. (Only menu mentioned—but what a meal) oatmeal and cream,

Photo courtesy R. M. Baker

Deer among the forest growths below camp.

bacon and eggs, scrapple, coffee, bread, butter and honey. (Think of it now!) Looked at flivver and found it frozen up too.

"Tuesday 7. Rain. Had company. Ed Rudy, State Fire Inspector called. (Only mention of any company).

"Wednesday 8. Partly cloudy to rain at 10 P.M. Getting colder fast!

*(Continued on page 29)*

Photo by F. J. W. Horich

Buzzard (Turkey Vulture).

# Some Census

CENSUS, giving accurate information about the population of animals on a given area, is very important in nearly all ecological studies. Leopold says, "Continuous census is the yardstick of success or failure in conservation." It is the first step to be taken in the management of game on any area. It is impossible correctly to administer any sound type of management if the "stock on hand" isn't known. Game management is a business, and certainly no one would attempt to run any business without first knowing what they had to work with.

The census gives more information than simply the total number of individuals inhabiting an area. It gives the fluctuations, migrations, mobility, and the relative abundance of a species. In addition, valuable information on the productivity, mortality, effects of environmental changes, and ratios between sexes, ages, and species may be obtained. (8)

In dealing with census methods, this paper takes up only those methods that are applicable to game animals. The systems are dealt with by dividing the game animals into two large groups; namely, the birds and mammals. Under these two large groups the techniques discussed are divided into measurements made by: (1) direct enumeration of whole areas or samples; (2) ratios based on trapping, banding, and later recapture of sample individuals; (3) observations of the density of populations through the use of indices.

For censusing some of our species there are methods used often enough to be of proven value, but with many of our game animals reliable census methods have not yet been developed. It will take intensive study of these animals before some peculiarity of their habits can be discovered which will allow them to be censused. Although nearly every group of animals has received its share of attention, most emphasis seems to have been given to birds.

### Direct Enumeration of Whole Areas or Samples

A census method based entirely upon visual observation and ability of the observer to accurately estimate distances has been used in censusing waterfowl. This method was used in 1922 at Crane Lake, Illinois. The technique "consists of estimating in square yards the area that is covered by a concentration of ducks, allowing one duck per square yard and then to allow for the raft end taperings and open spaces within the formation to subtract one-third from the figure obtained." The accuracy of this method depends entirely upon the ability of the observer to estimate the size of the raft. This technique has been checked twice by aerial photography and proved to be a reliable method. (1)

An older method used by the U. S. Fish and Wildlife Service "is that of estimating the units of a flock, or units of birds on the water, and computing the total number in a flock on that basis." It would often be impossible

***Note: Because of its length this article will be continued in the next issue***

accurately to estimate the area or compute the number of birds of a whole flock in motion, but if small units are taken and the birds in them counted, an accurate computation of the total number can be made. (1)

A direct census of gregarious birds may be easily taken by covey counts. This method is especially adaptable to censusing quail because of the covey's limited mobility. McLean used this method in the foothills in San Mateo County, California, during the winter of 1928-29. He counted and mapped the coveys of California quail on a 22,000 acre plot and found 75 coveys totalling about 2000 birds, or 1 bird per 11 acres. (8)

Direct census may also be taken of non-gregarious birds by the use of a well-trained bird dog. Wight used this unique and organized method in censusing upland game birds in Michigan. A strip or cross-country route was laid out; and accompanied by the dog he could survey many acres of land in a reasonably short time. When the dog flushed or pointed the birds, the observer recorded the proper data concerning the birds and habitat, as well as time of day and other important factors.

Account was taken of the possibilities of the same birds being flushed the second time on the same survey. The inability of the dog to flush the birds during the breeding or nesting season was also considered. It is apparent that during the reproduction season bird scent is not as easily picked up by the dog as during other months.

This system may be objected to because the results depend upon the individual ability of the dog in marking and flushing the birds. Dogs may vary as to their relative worth in performing their duties; therefore, only dogs of known and proven field efficiency should be used for game bird census work. While the system is not perfect it seems more reliable than any other method, because the sources of possible error of the other methods are greatly reduced. The bird dog census has as its greatest weakness the limitation of the use of the dog during certain seasons. (9)

King, in his ruffed grouse studies in Minnesota, has developed a reliable census method. The area to be censused is laid off on the 40 lines north and south and east and west, giving a grid system. The lines are laid out by compass and marked by painting the trees so they can be followed in later observations. Where the lines intersect different marks are used so that the man walking the lines may easily orient himself. All of the 40 lines and half of the boundaries are followed. Each bird flushed is recorded by a serial number. The flushing distance is paced off, and the location

# Methods for Game

*By Allan T. Studholme*

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plotted on a field map. If a bird is flushed near the same location a second time, the same day, it is recorded only once. Such a case may arise where the strips intersect. Censusing is done only under favorable weather conditions. If the area is too large to be completed without breaks of two or more days the census is started over again. The grouse population is determined by first making up a table of cover types, by age classes and densities, for the area. Then by using the following formula the total population of the area is easily determined:

$$\frac{\text{total area x birds flushed}}{\text{area of strip covered}} = \text{total population} \quad (11)$$

Another method of censusing ruffed grouse was used during 1936 in New England. About 500 acres at Petersham, Massachusetts was censused. A bird dog was used and the birds flushed, and roosts or tracks seen were recorded on a type map. It was soon found out that in early winter only the conifer types harbored any appreciable numbers of birds, and the bulk of the time was from then on spent on these types. The census was made at the rate of about 200 acres per eight-hour man-day. This method has many chances for error; but if done by an observer who knows grouse, and a good dog, the results should be useful. (11)

In England red grouse are driven over the guns, by men spread out at regular intervals. This provides an opportunity to count the birds as they take wing. The only error in this method is the "leakage" of unflushed birds. (6)

A rough spring census of pheasants was taken in South Dakota by Oscar Johnson. He selected representative forties in several of the counties and had game wardens count the number seen during the morning and evening feeding hours. "The counts were made during the spring when cover was at a minimum. Each forty was counted for 2-3 successive days, preferably including both morning and evening, and the average count assumed to constitute the population." The census was taken during the middle of May. Since some of the hens were incubating and therefore not visible, the sex ratio was distorted and all the hens were not counted. "Johnson's wardens may or may not have seen all the pheasants resident on these sample forties, but what they saw is nevertheless an index to comparative abundance." (8)

A survey of pheasants, quail, and Hungarian partridges was made in Iowa during the winter of 1931-32. The game wardens selected and censused five farms in each county. The farms selected were well scattered and represented good, average, and poor densities for the local game birds.

"The pheasant counts were made by 'driving' one farm in each county with a crew of volunteers walking abreast through corn or coverts. Estimates of selected farmers, checked against the drive, were accepted for the other four samples in each county.

The quail counts were made by working one farm in each county with a bird dog, or after a tracking snow, and determining the number of coveys. Coveys were converted to birds either by adding the actual number of birds seen in each or, failing that, by arbitrarily assuming 15 birds per covey. Four other farms were then censused by farmer-estimates." (8) The Hungarians were censused in the same manner.

This method does not give the correct total population of the state because the samples are not representative of the state, and also because the farms were selected to show the densities for the principal local game bird. For this reason, "Quail are penalized in pheasant country, and vice versa." (8)

Leopold used the sample plot method on a large scale in studying the quail density in Missouri. Quail densities were compared with cover and food distribution, rather than actual enumeration of the quail; therefore no care was taken to get a true cross section of the state as a whole. If the plots had been geometrically distributed, they would have given a good cross section of the state, and a census could have been taken from them. Low-density plots were under-represented, because the farmers or sportsmen had not counted the coveys on thinly populated samples.

The Iowa Conservation Commission, in 1936, wanted a large scale census of quail to determine if it would be advisable to open the season that fall. A rather unique bird dog system of censusing was used during September. The abundance of pollen and the high temperature made the dog almost useless for scenting birds during the heat of the day. But from 6:00 A.M. to 8:00 A.M., when the vegetation was wet with dew, and the pollen mostly bound, and the temperature was between 50° and 60° F., it was found that the bird dog could work efficiently. Five conservation officers who had good bird dogs made the census. Each officer surveyed three typical quail ranges in the southern, central, and northern part of each county. Each man censused three counties in nine days. Quail were found in 80% of the one hundred and twenty-eight ranges censused and the commission opened the season in 20 counties. Reports by hunters, conservation officers and observations by Bennett and Hendrickson during the hunting season and the winter proved that the system was reliable. (2)

This kind of census is not perfect, but from the standpoint of the Conservation Commission it has many advantages. It is inexpensive, fairly accurate, and can be completed in a very short time. The results can be used as a basis for the opening or

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# THE BOY SCOUTS AND THE SPORTSMEN

Photo by C. Gordon Krieble
Boy Scouts placing whole corn in wire feeding basket.

*By Charles K. Fox*

***Note: Mr. Fox is known to many of our readers because they are also subscribers to the "Pa. Angler" which he is now editing, and doing a good job of it, in the absence of Alex Sweigart who is serving in the Armed Forces***

YOU have asked me to participate in this program today because I am a hunter and a fisherman, and many branches of the work of the Boy Scouts is closely allied with the interests of the sportsmen. All scouting which has to do with the out-of doors is close to the heart of the true sportsman.

The most observant people in all the world are those who spend a great deal of time in the mountains, along the streams and in the field. The signs they read and the living things they watch portray to them stories and sequences which are entirely foreign to the babe in the woods. Scouting, hunting and fishing make better fathers, better sons, better husbands and better sweethearts with stronger bodies and stronger minds.

The outdoorsman is often misunderstood by those who are not inclined that way. Unless something tangible is brought home by the hunter, the angler, the camper or the hiker some people believe that the result is time and energy wasted.

One day a man went into the mountains with his fox hounds. Accompanying him was a friend who had not even reached the tenderfoot stage.

The large hounds soon jumped a fox, and they immediately opened up with their deep tonguing as they gave chase. The hunter turned to his friend and jubilantly exclaimed, "Ah, listen to the music of the chase; isn't it wonderful." The other answered, "I can't hear a word you say, these darn dogs are making too much racket." Yes, we are often misunderstood but it is always by some unfortunate individual whose life can not be as complete as our own because the gifts, the beauty and the workings of nature are beyond his or her recognition.

Why do we like to get away from the hustle and bustle of civilization and visit nature in the raw? Before the dawn of civilization many generations of our ancestors depended upon the fish and game they caught for their livelihood. In many of us is a latent desire to follow in their footsteps. This desire is born in us—not acquired. That is why the great love some have for hunting and fishing is not understood by others. When two sportsmen meet, all barriers, no matter how great, are immediately broken down. These two individuals enjoy each others company; they understand each other; they speak the same language.

It requires all kinds of people to make a world. When I say sportsman I use that word with reservation. A sportsman is not just anyone who hunts and fishes. The qualifications are much more stringent. He is one who competes fairly, and plays the game according to the rules and spirit of sportsmanship. He goes forth for pleasure and not to secure some cheap meat. The man who takes more than his share is catalogued with the dirty label, "game hog," and although he may be well pleased with himself he is despised by the true sportsman. Fortunately his kind is in the minority and diminishing.

There is a limit to the supply of game and fish. Each year nature places a surplus of game in our woods and fields and a surplus of fish in our streams and ponds, for the benefit of man, just as nature provides us with the essentials of life. In our hunting and fishing just as in everything else we must practice conservation because our surplus is limited. Today so many spend their leisure time hunting and fishing that a vast army is dividing a comparatively small surplus. The days of great plenty for the sportsman are gone, never to return. Back in the old days, within the memory of many, a small group of hunters and anglers harvested a tremendous surplus, but today a vast array of hunters and fishermen work on a much smaller surplus.

Ours is a great sport which must be carried on. We must not only be interested in securing beneficial pleasure each year, but we must be equally as enthusiastic in establishing better hunting and fishing for the future, not only for ourselves but for those who follow. If better hunting stories are to be told, if there is to be less time between bites it is essential that we protect the sport. Let us look beyond the next piece of game, the next trip, the next vacation.

Today the demand for fish and game far exceeds the supply. How can such a vast horde of fishermen and hunters be furnished with enough fish and game to make the sport interesting? The answer is conservation. In our campaign to aid nature increase the surplus there are various effective measures which can be employed. Among them are: improve the inviroment by planting food and cover, persuade land owners not to harvest every last strip of grain but to permit a small amount to stand for the game and song birds, build shelters and hoppers and feed the game during the severity of the winter, try to eliminate some of the worst predators and cooperate with the state in its stocking program.

The fisherman enjoys the rare case where it is possible to have your cake and eat it too. A fish can be hooked, played and landed and it can be returned to the water uninjured where it can once again furnish sport to those who seek piscatorial adventure. A fish is a low form of life and is not in-

*(Continued on page 28)*

# OUR HERITAGE TO SAFEGUARD

*An Excerpt from the Report of the Retiring President, Karl T. Frederick, delivered at the Annual Meeting of the New York State Conservation Council, Inc., Binghamton, New York, December 5, 1942*

I want, in closing, to refer to what is the most important fact of life to all of us at the present time and which bids fair to overshadow everything else for a more or less indefinite period of the future. I want to speak of the war and its effect on conservation and the place of conservation in a war world.

What are the values for which we are fighting? Now, I can't undertake, of course, to enumerate them, but they may perhaps be summed up in this—that we as American citizens are fighting for the protection and perpetuation of our way of thinking and our way of living. We do not want to submit to domination and dictation from foreign powers or foreign ideas, ideals or ideologies which are not agreeable to us. You may say it is a strife of "wants." We want what we want. We want and we are going to fight for it. That is human nature and it is alright, but when we are through fighting for it, are we going to have left that for which we have fought or are we going to perish in the fighting for something which we have permitted to be destroyed while we are fighting? If we have nothing left at the end of the war, it will not matter much whether we "win" or "lose." The one will be as disastrous as the other.

Now, the things that we may have left are many and various. We live on this little ball that is flying around in the Universe; we can't get off it and for practical purposes everything that we have is in or on this earth. Therefore, the earth and the stuff of which it is made and the materials which it produces to go make up, from a material standpoint, all that we are fighting for. Now, some of those things are not replaceable and that presents one problem in "conservation." Other things are things which grow out of the earth, from the soil, from the water, from the air, from the sunlight. They are the reproducible natural resources with which this earth has been blessed and which we enjoy. We do more than enjoy them, we depend upon them and we live on them. Not the least of those values are relaxation and recreation which come from the enjoyment of our natural resources. We have made that our particular field of "conservation."

One of our greatest and most valuable resources, one of our treasures, is our wildlife. Another is our slowly reproducing resources such as our trees. And with all of that, the third of our great elements of national wealth is our facilities for recreation and health—scenery, beauty, nature and all of the things that we enjoy in what we may call the "out of doors."

Those things may be sacrificed unnecessarily and lost to us and after this war is over we may find ourselves not only poor but practically bereft of them if the short-sighted and foolish ideas of some of these people are permitted to have their way. This, as much as any other time, even more than any other time, is one for conservation —which means taking care of and using wisely the wealth that we are blessed with.

It is no time for us to abandon the protection of our welfare, our lives or our property. We have got to take care of them with unusual care. That doesn't mean that we shall deny the use of this, that, or the other essential in the winning of the war, but it does mean that we must stand like rocks against the attacks of those wolves in sheep's clothing, those looters and vandals who are always ready and willing to take advantage of a troubled situation to despoil the unwary. Whenever there in a great tragedy like a fire or flood, we find a certain number of vandals who are ready to rob, steal, murder, and commit all kinds of crimes when there is a relaxation of public control and public order. Then these wolves in sheep's clothing appear. In some cases they are, comparatively speaking, easy to deal with. They can be shot or hung. But those people who are vandals or wolves in sheep's clothing in the realm of the intellectual are much more dangerous because ideas, after all, are the things that rule this world. We are creatures of the spirit quite as much, if not more, than, we are creatures of the body. We live in these bodily houses but our spirits and our lives are something else. Those wolves in sheep's clothing who try to lead us astray along paths that would be destructive of our welfare and our wealth for ends that they do not disclose but which they disguise and offer us as prescriptions for the "winning of the war," or the "winning of the peace," must be watched and guarded against at every turn. We must be more than ever alert and careful to de-

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Photographed and copyrighted by Arthur Swoger

The Game Refuge at Pymatuning, Crawford County, offers a haven for thousands of migrating waterfowl every year.

# Many Waterfalls in Pennsylvania

By Dr. R. W. Stone

*Pennsylvania Geological Survey*

*CONTINUED FROM LAST MONTH*

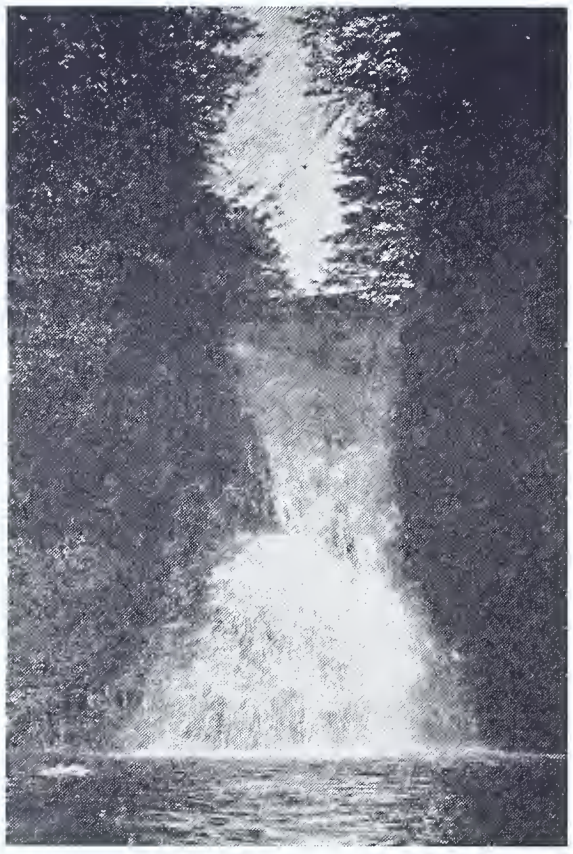


Photo by W. Gard Conklin
**Sullivan Falls on Sullivan Branch of Fishing Creek, Sullivan County.**

### Monroe County

*Bush Kill.*—Route 402 from Marshall Creek to Porters Lake crosses Bush Kill just above the Big Bushkill Falls or Falls of Resacca, a vertical plunge of 40 feet. The top is 790 feet above sea. About half a mile upstream is another fall of 30 feet. These falls are over massive Catskill sandstone. Some of the tributaries of Bush Kill on the left bank for several miles above Resacca are very steep and must have numerous cascades. High Falls of Bush Kill are in Pike County.

*Marshall Creek.*—In its course across Smithfield Township, Marshall Creek has three falls. Less than a mile above the village of that name on Route 209, the creek descends 35 feet almost vertically over fossiliferous Hamilton sandstone. The altitude of the top is 550 feet. One mile below the village is Twin Falls, and 2½ miles south is Buttermilk Falls about 1 mile above the mouth of the creek. At Buttermilk Falls the creek at 410 feet altitude goes down a very steep slope 35 feet over a ledge of limestone studded with masses of black flint. Just below the road crossing Marshall Creek at the foot of these falls the stream makes another drop of 10 feet over grit.

*Brodhead Creek.*—The first falls on Brodhead Creek are five miles above Stroudsburg, just above Analomink. Here on the west bank the drainage from Clarke Lake cascades over Clarke Falls into Brodhead Creek. Lee Falls is a similar cascade at the mouth of a creek in the east bank. Next is Jacks Falls about 5 miles above Analomink and three-quarters of a mile below the mouth of Stony Run in Price Township. Here a succession of cascades 3 to 4 feet high descends 30 feet in about 300 yards through hard, gray Catskill sandstone. The altitude of the top is 715 feet. Targa Falls at 755 feet is a short distance above the mouth of Stony Run. Here Brodhead descends 10 feet in two cascades.

Spruce Cabin Run, two miles east of Mountainhome, has some falls or cascades, and the falls in Buck Hill Creek give the name to a village. Here the creek descends from 1200 to 1100 feet above sea in about 200 yards.

On Levis Branch of Brodhead Creek, about two miles above Canadensis, the outlet of Mountain Lake falls from 1435 to 1317 feet, or a fall of 118 feet, of which 90 feet is almost vertical, the rest being in two or three cascades. Two miles farther upstream on the Monroe-Pike County line is Indian Ladder Falls, earlier called Upper Levis Falls, with a total descent of 102 feet in 150 yards.

*Mixsell Creek*—"Where the road crosses Mixsell Creek, near its mouth, that stream makes a vertical fall of 60 feet over hard, gray, sandy slates, which may possibly belong to the Hamilton sandstone beds. Frantz's Creek flows in a deep narrow gorge at this locality, and Mixsell Creek coming up to its bluff passes over the 60-foot fall directly into it." This locality is in Eldred Township and I suspect about 1½ miles above Kunkletown on Buckwha Creek. Mixsell and Frantz Creeks are not named on the Wind Gap topographic map.

### Pike County

Pike County seems to rank first in number of waterfalls. This is because of the steep bluff that many streams descend to reach the Lackawaxen and Delaware Rivers. The falls will be mentioned in order down the river.

Wallenpaupack Falls is only half in Pike County and will be mentioned under Wayne County.

Blooming Grove Creek, in its lower part north of U. S. Route 6, falls about 100 feet per mile and has frequent cascades. Below its mouth at Glen Eyre several ravines on the right bank of Lackawaxen River descend 200 feet in one-quarter mile in numerous cascades.

Shohola Creek descends 550 feet in 5½ miles north of Route 6, including a 50-foot fall over a cliff of Catskill rocks close to the highway. A bluff 200 to 500 feet high faces Delaware River from Parkers Glen to Matamoras and the small streams descending it have many falls and cascades. Examples are the falls in Walker Lake Creek, half a mile south of Parkers Glen, in Pond Eddy Creek, and in several ravines in northern Westfall Township.

Saw Kill descends from an altitude of 1200 feet at its head to 380 feet at its mouth on Delaware River at Milford. Several falls locally increase the grade. The first is one-quarter mile above the mouth and with a dam has a fall of 20 feet. Half a mile up stream in the ravine at the end of the main street in the village, there is a plunge of 18 feet over a fall and dam. The third fall is 1¼ miles above the mouth and 130 feet above the river. "This is a constant succession of cascades 1 to 20 feet high through a vertical distance of 50 feet. At the top of this 'Bridal Veil' fall, as it is called, the stream has cut a narrow channel through the rock 10 feet deep but only 5 feet wide at the top, so that one can easily step across the channel even when it is much swollen."

One mile above Milford and half a mile below the crossing of Route 6 the Saw Kill has cut a long trench. It is 110 feet deep where the Saw Kill Falls proper begin, 50 feet wide at top and 10 to 15 feet wide at bottom, in shale. Here Saw Kill falls 20 feet in two cascades over a bed of fossil corals and shells, then it spreads out on a broad, gently sloping platform of gray sandstone, "to fall into the great abyss below in a vertical plunge of 60 feet." A chasm below the fall is 75 feet deep and only 2 to 10 feet wide. About four miles from Milford on the north side of Route 6 are the upper falls of the Saw Kill.

On the east side of Milford, Vandemark Creek makes a series of cascades over dark Marcellsu shale.

### The Raymond Kill

Raymond Kill enters Delaware River three miles below Milford. The stream descends 310 feet in the last 1¼ miles. The main fall, over Hamilton sandstone, is 125 feet in two successive leaps, "excavating a beautiful glen, overhung with vertical walls of pine clad rock 200 feet high, into whose depths the sun never shines." The top of the falls is 595 feet above sea level and about one mile from the river road. The upper leap is known as High Falls, a plunge of 80 feet, and the lower is Bridal Veil, descending vertically 45 feet below an intervening deep pool.

On Adams Creek, three miles farther south, there are several falls 10 to 20 feet high within one mile of the Delaware, where the creek passes over Hamilton sandstone.

Dingmans Creek flows through George W. Childs State Forest Park to reach the Delaware at Dingmans Ferry. About 3½ miles from the river is Fulmer Falls where the stream cascades from 890 to 850 feet above sea level, and then leaps from a narrow sandstone ledge to 800 feet. At 750 feet altitude the stream drops 40 feet straight down over Deer Leap Falls to a ledge and spreads out to cascade into a pool. Two cascades, 10 and 20 feet high, lead down to High Falls, which are about one mile from the village. The top is 645 feet above sea level. Here the creek descends 130 feet in

a very short horizontal distance, the lower portion being a nearly vertical plunge of 100 feet over Hamilton sandstone.

Hornbeck Creek, entering the river two miles south of Dingmans Ferry, also has its High Falls. These are a long mile west of the river road and about 100 feet high. Toms Creek at Egypt Mills, and lesser streams descending the river bluff, have long successions of falls and cascades.

Little Bush Kill, in Lehman Township, the southernmost of Pike County, is noted for Bushkill Falls, which are about two miles above Bushkill village. "The stream cuts a deep narrow channel through the Genesee dark slate, falling 50 feet in a series of gentle rapids, until the creek cuts down to the Hamilton sandstone, when it descends 75 feet vertically into a deep pool with a large amphitheater excavated all around it; then, passing out through a narrow channel, the water descends in another vertical plunge of 50 feet through a very narrow chasm to the deep, dark, and narrow canon below. This is probably the most attractive 'Falls' in the county on account of its wildness and grandeur, as well as for the refreshing coolness always to be found in the shadowy depths." The top of the falls is 700 feet above sea level.

The outlet of First Pond, emptying into Little Bush Kill just below Bushkill Falls, has Pond Run Falls, also of considerable height, and, like Bushkill Falls, is over Hamilton sandstone.

Saw Creek or Middle Bush Kill is on the west side of Lehman Township. At Winona Falls, 1½ miles above its mouth at Shoemaker, Saw Creek drops 15 feet over a thick mass of fossil corals in a dark bluish matrix. At the foot of the fall the stream turns at a sharp angle and cascades over beds of Hamilton sandstone. The base of the falls is 450 feet above sea level. Cascades are numerous on the tributaries of Saw Creek between Winona Falls and Saw Creek Pond.

### Indian Ladder Falls

Indian Ladder Falls is on the Pike-Monroe County line in Greene Township on Levis Branch of Brodhead Creek about four miles north of Canadensis.

The brink is 1681 feet and the base 1579 feet above sea level, or a descent of 102 feet in 150 yards. The name is derived from the succession of cascades somewhat resembling a ladder.

Bush Kill heads in high swamps on the west side of Porter Township and at an altitude of 1150 feet drops over High Falls just east of the Monroe County line.

### Somerset County

In the eastern side of Somerset County, Wills Creek falls a few feet over a sandstone ledge at Falls Cut Tunnel on the B. & O. Railroad west of Fairhope, and Brush Creek descends about 8 feet in cascades over a conglomeratic sandstone of lowest Chemung age, at the bridge 1½ miles east of Johnsburg.

Elklick Creek has cut a small ravine with vertical walls that terminates in a cascade about 20 feet high. This place is on the east flank of Negro Mountain about 5½ miles west of Meyersdale and is known as Elklick Falls or Klink Falls.

Several ravines on the east flank of Laurel Hill and in the gorge of Casselman River discharge their streams over cascades.

### Sullivan County

It has been written that all the main streams in Sullivan County "flow in deep and narrow canon like valleys, walled in by steep slopes and almost vertical cliffs; and in these walls, varying in height from 500 to 1000 feet, open a thousand ravines set with waterfalls."

Such a one is Lincoln Falls in Elkland Township, about 4 miles northwest of Forksville, where there is a ravine 100 feet deep tributary to Elk Creek, containing a waterfall 25 to 30 feet high, a vertical drop in a damp and shady ravine head.

Of a wholly different character is Dutchman Falls in Loyalsock Creek three miles northeast of Laporte. This is a series of cascades with a descent of about 20 feet in 100 yards or more.

### Tioga County

According to the Second Survey, there are three falls on Fellows Creek about 7 miles northeast of Blossburg. "The three falls in this creek have a descent of about 100 feet in an eighth part of a mile, where the beds of hard conglomerate gritstone have checked the erosion of the channel, as in the case of most of the other ravines. At this point the creek is limited to a narrow gorge or chasm, in one place only twelve feet wide, having its edges rise almost perpendicular to the height of from 80 to 100 feet. Near the foot of the second fall is another which is precipitated from the east cliff about 65 feet, over the entire mass of conglomerate."

Perhaps there are falls also in Fall Brook about 4 miles east of Blossburg.

About five miles south of Canton at Leolyn in the extreme southeast corner of Tioga County, the valley of Lycoming Creek is glacially over-deepened and small tributaries enter at steep grade. The Penbryn Cascade here is a nearly vertical series of little falls more than 50 feet high, made by

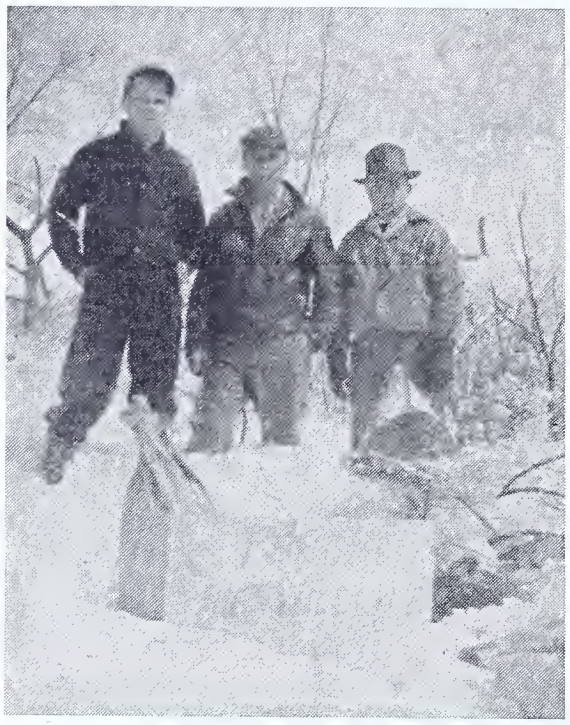
*(Continued on page 29)*

Photo courtesy Dept. of Forests and Waters

**Cascade on Dingman's Creek, Childs Park, Pike County.**

# PICT

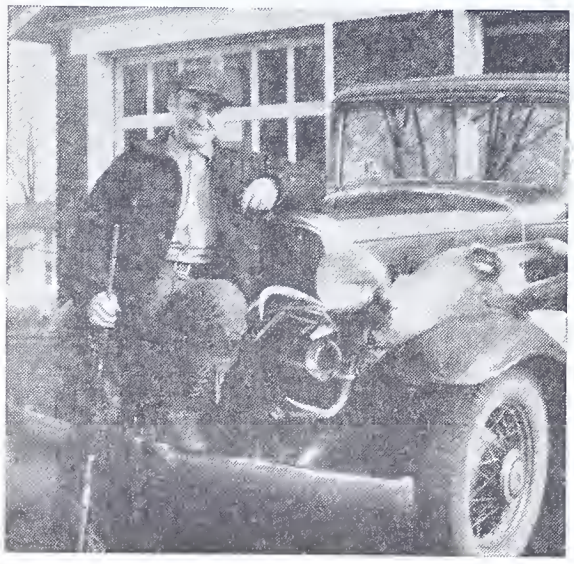
C. L. Bachus of Wilkinsburg, member of the Allegheny County Sportsmen's League, with two rabbits and a ringneck bagged on November 17, 1942.



Three members of the Blaine Hill Hunting Club who carried out an extensive winter feeding program this winter. Photo courtesy Anthony Kastan, Elizabeth.

A rare Gamble's Sparrow found by Barton L. Sharp, Lititz in Lancaster County last summer. It marks the third record of its kind in the eastern United States.

Members of the Herndon unit of the Tri-County Sportsmen's Association for years have had a reputation for controlling the crow. The above photo is mute testimony of the ability of four of the Tri-County members. They killed over 100 of the black marauders.



Splendid buck killed by Harry Harling of Duncannon. This marks his sixth conquest.

Richard E. Deibler with a 122 pounder shot the last day of the season with a single shot 30-30 rifle near Manada Gap, Dauphin County. The lucky lad also killed one duck, one ringneck, 18 squirrels and 5 rabbits.

An 8-point, 190 pounder killed by Robert Musolff of Erie. Outside curve was 22½ inches, greatest spread 17¼; killed the first day of the season near Waterford.

# IAL

Barn Swallows feeding their young on the wing. This excellent photo was taken by George P. Millington, of Philadelphia, Editor of Better Homes and Gardens.

★

d Flycatcher at nest-box. The
ird that weaves a snake's skin
ote piece of skin in its bill.

Photo by Thomas Belwowiz
An unsual photo of a black snake coming down an old stump. While generally beneficial this reptile will rob birds' nests whenever he has an opportunity and even kill small game for that matter. Note other snake at lower right on ground.

Robert Steele, Bedford, with big buck killed December 2, on the top of Tussey Mountain during a heavy snow storm. It was 23¾ inches across and had 23 points large enough to count.

★

Unique trap designed by Raymond Middleton of Norristown, for the purpose of catching and banding Chimney Swifts.

By the time this issue is off press the robins and other Spring birds will be starting their northward journey.

# An Unforgettable Character

*By W. W. Britton*

IF Mann Lane had been a white man with a white beard he would have run Santa Claus a mighty close second. It was not Mann's fault that he was a negro nor was it much of a handicap to him. He was indeed a happy man and though he has been dead several years I at times fancy I can hear his melodious laughter.

Mann did not require nor ask much of this life. His family and dogs were his greatest assets. From them he derived all the pleasure of life except an occasional glass of the amber fluid. I have seen hunters by the thousands and hunted with hundreds of them, but this "Mann" was the most outstanding of them all.

One afternoon a Greek friend and I stopped at Mann's and were informed that he was hunting rabbits a few fields away from the house. We proceeded in the direction pointed out by his wife. We found him, but what a sight. He had on an overcoat that dragged on the ground, three rabbits tied by tar-rope over his shoulder (he lost one before we got home) and his old double barrel had only one hammer on it.

I introduced my friend to the old colored gentleman and we started to hunt together.

It was not long until a rabbit started out just ahead of my friend's dog. The Greek took a flash shot at it while his dog was reaching for it. Luckily he shot behind both animals. I saw a troubled expression on Mann's face and after we got a short distance away from the Greek, he turned to me and said, "Mr. Willie, who is that German"?

I replied, "Mann, he is not a German, he is a Greek."

Mann said, "I knew he was none of us and if he shoots that close to any of my dogs I'm goin' home."

Some white folks might have resented the fact that he considered himself the equal of a white man but I can truthfully say, that he was whiter in his heart and spirit than many of my Caucasian Brethren.

After small game season one Fall I dropped in at Mann's for a fox hunt. He had hounds of all colors and descriptions and according to him they all had a part to play in a chase. He knew each one's bark and would interpret the language for you. Old Tom was the leader of the pack. He started the chase and led it for two rounds then all at once quite tonguing. I looked at Mann and he grinned at me and said, "Old Tom's cuttin'. I tell you he's the smartest dog I ever owned."

I said, "What do you mean he's cuttin'."

"Why," said Mann, "he gets tired foolin' and gets down to business. Old Tom will let the rest of the dogs take him out around the end of the mountain and he will wait until they bring the fox back. Old Tom knows where that fox will come back and he will be there to meet him. That fox will either get caught by Tom on this next round or he'll hole up or go up a leanin' tree."

Well, I could hardly wait to learn the outcome and see how near right my colored companion was in his prediction. So to give me a better opportunity to witness the proceedings which he was certain would take place he hustled me to the top of the mountain. Standing on the top out of breath we looked down over the rocks and there stood Old Tom waiting and listening.

The chase kept coming Tom's way, finally he crouched like a cougar and started to sneak down the mountain a little way, then like an arrow sprung from the bow he was off. Now he was out of sight, but we heard the fight and Mann said, "Come on Mr. Willie Old Tom's got him."

We hurried best we could down over the rocks and there the prostrate form was stretched while Old Tom permitted the other dogs to fill their nostrils with the familiar aroma. With a pat on the head for each animal, Mann picked up and appraised old reynard. With a lusty ha! ha! he said, "What did I tell you Mr. Willie"?

"Yes, Mann, I see you know your stuff," I replied.

We sat there on an old chestnut log and

the old fellow related story after story which were very interesting to me. But there was one which caught my fancy more than the rest. He started like this:

"Last winter the boys on the other side of the mountain were havin' all kinds of trouble with an old red fox. They go out and start this same fox about nine in the morning and at three in the afternoon the chase would end, and it always stopped at the same place; so, one of the fellows decided he would station himself at this spot and see if he could find out what was going on.

"Now, whether their story is true or not I don't know, but the fellow declared that just about three that afternoon he spied the fox too far away to kill with shot, but he learned the creature's secret. He said that the animal sat down and licked all four of his paws; that took the scent off and from that spot the dogs were unable to follow the trail.

"Well, I didn't believe that so I arranged to take my dogs over and give him a whirl. We got the fox started about nine-thirty in the morning and Old Tom, not being too familiar with that territory, was unable to do much cuttin' until about two in the

*(Continued on page 27)*

# Insects in Winter

*By A. B. Champlain*

IT WON'T be long now until we may again expect to see the early birds, the first wild flowers and spring peepers. Along with this pleasant anticipation we must remember also that insect activities will soon become a factor in our everyday life.

Before we arrive at the time to attack these little six legged creatures, may we dwell upon the rather interesting theme of where our insect friends or foes have been hiding away or residing over the cold winter months.

Of course we know that all insects do not die from cold or frosts. However, many of them do—more especially the worn out adults who have already consummated their purpose in life. When the first frosts kill off the katydids, grasshoppers and other worn out members of the insect tribes—such individuals have already made provisions for future generations. Each mother insect, has with instinctive foresight, laid her batch of eggs in some secure place.

As an example we will take the Chinese Praying Mantis, that spectacular creature whose predaceous habits are an asset to man. The mother mantis lays from 150 to 300 eggs which she covers with a frothy blanket. This covering hardens and protects the eggs from winter cold, from snow and sleet and frost, while mother mantis her life work accomplished, dies.

Other related cousins such as grasshoppers make cases in the earth, which they fill with eggs for winter storage. Katydids glue their well insulated flat eggs in a row along some plant twig or stem before they perish. Tree crickets and some similar forms insert their eggs into the bark or stems of living trees in order to thwart the ravages of Jack Frost.

Again take some of the destructive moths, parents of tent caterpillars, cankerworms and similar leaf eaters. Their eggs are laid or plastered in clusters with an insulating glue or varnish over them, which does the double duty of fastening them to the tree or bark as well as protecting them against cold and moisture. The moths after laying these eggs die. One measure recommended for the control of these insects is the collecting or treating of egg masses during the winter months or before the eggs hatch into the destructive leaf eaters in the spring.

Photo by H. B. Kirk

The Monarch butterfly goes South for the winter.

Photo by F. J. W. Horich

Egg mass of Chinese Praying Mantis, in which condition the winter is passed.

Certain species of insects are clever enough to get through the winter cold as naked grubs, caterpillars, larvae or worms—they are known under all of these names—but each one of them must be snugly housed in some well protected retreat. Take that destructive alien, the despised Japanese Beetle. It passes the winter as a baby beetle, in the grub or larval stage, cleverly concealed in a cell or gallery of its own making. This is constructed in the soil beneath the frost line and usually beneath a grass plot. Here is one reason for spraying arsenate of lead upon grass plots in the fall, to kill the youngsters before they toughen up for winter.

That dangerous pest the common house fly, lives preferably in warm manure piles during the colder months in the larval or maggot stage.

Many other caterpillars go through the winter and eventually come out in the spring to eat our first green things before they transform into some other stage to continue their depradations through the summer.

Still observing we find that there are a number of adult insects that do not die in the fall but who go through the winter as mature individuals. Hornets, whose large paper nests are striking examples of insect architecture, and whose ability to protect themselves have caused us to notice them, belong to this group. At the first indication of freezing temperatures, the queen hornets hie away to the forest or swamps. Here they hunt up a decaying log. Into the soft wood tissue each Queen hornet will work her way and form a cell or chamber for protection. When spring appears each overwintered Queen will come forth and begin a nest with broods that will result in a hive of buzzing life.

Also among the insects that pass the winter as adults, we may mention the Mexican Bean beetle. This pest sleeps away in happy hibernation, beneath the rubbish and debris allowed to remain in our gardens. You will remember our recommendations about spring and fall clean-ups.

Going back to adult insects, we even find some butterflies that winter over as winged individuals. The mourning cloak will be one of the first. This well known species hibernates in hollow logs, beneath loose bark or in caves or out buildings.

Is it true or false that our monarch butterfly, that gorgeous, reg-winged, black-veined beauty that breeds on the common milkweed plant, goes south for the winter? You are right, it is true! Countless thousands of these butterflies gather during the fall time and sail on the upper air currents for the sunny south. When the first breath of spring brings forth the birds and leaves, our monarch butterflies return to their old haunts, the females to deposit eggs on the milk week plants.

Many flies, mosquitoes and gnats have their favorite hibernating places. Mosquitoes, those pests of man and beast, hide away in dark corners, in tree crevices, beneath bark or in similar places.

Of course in our own heated homes, the lowly insect pests that breed in our pantries or attack our silks or woolens in dark closets are unaware of changing seasons. They continually add, divide and multiply if we are not on our toes with defense measures. All days are Summer days to them.

Photo by H. B. Kirk

Black walnut tree, foliage stripped by caterpillars (Walnut Datana) which go into the ground beneath the tree to hibernate.

# Whole Hog or None . . . THE EDITOR

The muskrat or "marsh hare" is a favorite dish of the South.

I WAS reading in a magazine the other day of the food rationing program. The article went on to point out the appetizing aroma of filled beef hearts, the delectable flavor of sweetbreads, the juicy tenderness of kidney, and the multiple uses, with a little epicurean ability, that pig's feet, pig souse, pig ears, beef tongue and all the rest of the parts of the lowly cow and hog that are so little used by the average American, could and perhaps will be put to in the average household from now on. From my point of view that will be swell because I like them all, so I'll have no trouble getting used to them. I'm not so sure about the good wife and the rest of our little family.

But there is the old adage that beggars can't be choosers, and while the distant horizon from the standpoint of satisfying our gastronomical desires may not be too dark or forboding, nonetheless it might pay a lot of folks to do a little sampling of the not so popular portions of our four-footed split hoof friends.

The same thing is true of our wild creatures. A great many of them have gone to waste every hunting and trapping season both from the standpoint of fat and food; why I don't know. A sports columnist mentioned this waste only too clearly in one of his recent articles when he said, "The newspapers have been carrying tales of people eating horse meat and liking it but seemingly they forget that only young horses are good to eat and there aren't many young horses in the country. There is, however, a source of meat almost every town or village in the state that so far in Pennsylvania has been neglected or wasted. We refer to the muskrat, trapped by nearly every farm youngster, and some older people, too. Down south the muskrat is sold in restaurants as a delicacy. Here in the north, where the flavor is finer, we throw it away.

"More than thirty years ago we worked for the Lycoming Lumber Company at Ellendale. Also working for the company were two young trappers from Pine Grove who feasted on muskrats almost nightly. Many were the invitations they gave us to their suppers before we finally accepted one. At last, deciding to give it a try we ate muskrat. Ever since that day we like muskrat and we'll venture to say so will you if you ever try it. To us it seems a shame that the muskrat carcasses are thrown away by the trappers or used as bait to catch other fur-bearers. We should use this good meat. It was not meant to be thrown away. If they can sell it at high prices in Baltimore it is worth just as much in Pennsylvania. And if you have one or two muskrats you can keep the fur if you'll give us the meat."

War exalts the popularity of a lot of things from machines to people—even the lowly game animals, so as this writer well said, why not take a leaf from the book of our southern friends and try a few muskrats now and then in season. Personally, I don't know of anything less cleanly in its diet than a chicken, yet they're sure good eatin'.

Other states seem to have the same idea and some of the folks in them are asking each other "Have a slice of baked raccoon? No? Well then, how about a bit of nice 'marsh hare' (muskrat to you) done to a turn? Or maybe you'd prefer a little roast 'possum, or woodchuck."

Iowa extolls the toothsomeness of the clean-living woodchuck or ground hog, and quotes Uncle Bob Flowers' recipe from Horace Kephart's "Camping and Woodcraft." Says Uncle Bob: "Cut the leetle red kernels out from under their forelegs, then bile 'em and sage 'em and put 'em in a pan and bake 'em to a nice rich brown, and—then I don't want nobody there but me."

Missouri points out the delectable qualities of roast opossum and raccoon. "Possum and Yams," according to the release "is enough to make mouths water—especially mouths accustomed to speak with a southern accent."

There are also more orchids for the common muskrat, millions of which are marketed annually. He, too, is a vegetarian, feeding on plants such as sweet flag, bullrushes and cattail, and his flesh is said to be sweet and delicately flavored.

Here are a few of the suggested recipes as set forth in a recent issue of *Wildlife Review*.

Roast Opossum—After skinning, dress and wash thoroughly with hot water. Cover with cold water containing one cup of salt and allow to stand over night. In the morning drain off salt water and rinse well with clear, boiling water. Stuff with following: 1 large onion chopped fine. Brown onion in 1 tablespoon fat, add finely chopped 'possum liver and cook until liver is tender. Add 2 cups of bread crumbs, little chopped red pepper, dash Worcestershire sauce, 1 fine-chopped hard-boiled egg; salt and water to moisten. Place in roaster, add 2 tablespoons water and roast about 1½ hours in moderate oven (350 degrees F.) until tender and richly browned. Baste every 15 minutes with drippings. Place on heated platter. Skim fat from gravy remaining in pan.

Baked Raccoon—Parboil raccoon for 30 minutes to 1 hour, then place in roaster. Add onion, carrot and apple. Dredge with salt and add pepper. Add an inch or two of broth and bake until tender (about 2 hours). Tomato catsup and mustard may be put on coon while baking or just before taking from oven to serve.

Two methods of preparing muskrat or "marsh hare"—(1) Cut into small pieces and soak overnight in cold water. Drain thoroughly when ready to cook, place in pot with little water and piece of fat bacon. Cook slowly until tender. Season according to taste with salt, pepper and sage. When done, meat can be browned in pot or placed in skillet, using plenty of bacon fat. Brown thoroughly and serve. (2) Boil in pot until meat falls from bones; pick up in small pieces. Make sauce by adding liquor left in pot, 2 hardboiled eggs chopped fine, generous (not these days of course) quantity butter, 2 tablespoons flour, salt, pepper and mustard to taste, and 1 gill of sherry wine. Mix dressing with meat and serve.

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## The Cardinal

O! Tell me bird with plumage gay
And crested head—Don't say me nay—
What alchemist could e'er combine
Such coloring! O, bird of mine.

From topmost bough in airy swing,
The Cardinal delights to sing;
His love-calls come at break of day
'Tis thus he chants his morning lay.

In vine-clad hills neath fragrant flowers,
He seeks his mate through sunny hours,
Then lightly soars to heights above
In crimson flight to sing of love.

When winter comes with snowy chill,
This bird of flame is with us still;
Bright messenger of joy is he,
From Nature's God—to you and me.

—Helen Hall Bucher

Picture of mother black bear and three cubs in Oak tree near Clear Creek State Park, Jefferson County, September 16, 1942, at about 4:00 p. m. In the picture the mother is plainly visible. A cub is below her, slightly to the left in the crotch of the tree. A second cub is climbing up the branch directly above her and the fourth—and youngest cub—is up in the left, top, portion of the picture, eating acorns. The bears were chased into the tree by a dog shortly before noon and until a late hour at night were plainly visible to the approximate 500 persons who drove to the scene to see them. Clear Creek State Park is located at the junction of the Clarion River and Clear Creek, about three miles northeast of Sigel and about 10 miles from Brookville—about due north. The tree in which the bears were seen—a large oak not more than 50 feet from the road between Clear Creek and Sigel—was sufficiently large to permit them to stay at least 40 feet from the ground and away from the milling crowds. They left the tree and vicinity sometime during the night after 11:00 p. m.—Picture was taken by W. O. Carlton, editor of The Brookville American, a weekly at Brookville, Pa.

# ☆ ★ ★ CURRENT TOPICS ★ ★ ★

## NEW AND RETIRING COMMISSIONERS

A. J. Hanes

A. W. Lee

Dr. C. E. Phillips

**Few sportsmen have had as interesting a background in conservation circles as Hon. A. J. Hanes of St. Marys, affectionately known to his friends as "Archie." Although employed in the accounting department of the Pittsburgh, Shawmut and Northern Railroad Company ever since 1917, Commissioner Hanes nevertheless took time out to preach the gospel of conservation.**

**He was one of the organizers of the Elk County Sportsmen's Association in April 1935, and its Secretary ever since. He was the instigator and principal character in the $35,000 Stream Improvement Project completed in 1941 along the East Branch of the Clarion River between Glen Hazel and Instanter. This project was sponsored by the Elk County Sportsmen's Association and ranks as the outstanding stream development project in Pennsylvania.**

**Commissioner Hanes is serving his sixth term as chairman of the North Central Division of the Federation of Sportsmen's Clubs, and was vice-president of the Federation from February 1941 until February 1942.**

**His appointment as a Commissioner by Governor James on January 12 will mean simply that he picks up a few more reins in his work for conservation. Commissioner Hanes succeeds Hon. A. W. Lee, Jr., Clearfield.**

**No member of the Commission served any more earnestly, sincerely or enthusiastically during his tenure of office than Colonel Lee who was appointed on March 26, 1935.**

**A prominent sportsman and a man of outstanding business capabilities, he fitted into the Commission's work admirably, and served diligently in the sportsmen's interests during his eight years of office. That he will continue his interest and work in conservation we are quite confident.**

**With the appointment of Dr. C. E. Phillips on January 4, 1943, by Governor James, the Commission and sportsmen will benefit by the services of one who has been interested in conservation for many years. Furthermore to help him guide the policies of the Commission he has the advantage of having been born and bred in the country. Therefore, he knows farmers and their problems well and on the other hand his affiliations with sportsmen's groups in his community have enabled him to understand thoroughly the hunter's point of view.**

**Dr. Phillips is a member and has been for some time, of the Tri-County Fish and Game Association, which consists of portions of Northumberland, Dauphin and Schuylkill Counties.**

**The appointment of one who understands the problems of both the sportsman and the hunter should help greatly in the Commission's future program for better relations between these two important groups.**

**Dr. Phillips succeeds Hon. Carl W. Rothfuss who was appointed by Governor James on December 9, 1942, but who resigned shortly afterwards (December 29, 1942) because of ill health.**

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### New Bulletin

The Place of Winter Feeding in Practical Wildlife Management is the name of a new technical bulletin just published by the Commission. This publication known as Research Bulletin No. 3, was prepared by Richard Gerstell, Chief of the Division of Propagation and Research, and is available only in very limited numbers.

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Unless the supply of rabbit skins can be increased substantially, the American hat industry faces a difficult supply situation because of the reduction in imports.

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The Michigan Conservation Department reports that four thousand 4-H boys are being enlisted in an effort to measure the State's harvest of farm game. Each will keep a record of the game kill on his own farm and turn in his tally sheet to his teacher of agriculture after November 5th. The tallies will then be forwarded to the Rose Lake Wildlife Experiment Station where they will be coordinated with intensive yield measurements made at the station.

The boys are instructed that a good pheasant crop is 10 cocks per 100 acres; while a good rabbit kill is set at 15 per 100 acres; and a good fox squirrel crop is estimated at 40 per 100 acres of woodland.

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"Four deer were observed swimming the Delaware River on the first day of the deer season in New Jersey. They swam to the Pennsylvania side, looked back and surveyed the Jersey hills, then walked up on a sunny slope overlooking their former home. They seemed entirely satisfied with the way they found things in Pennsylvania." —Game Protector John H. Lohmann, District 7, Division "B".

"A party while hunting in Venango County this season shot an eight point buck. After admiring it for awhile, he leaned his rifle against a tree, took his knife and turned the deer over to dress it. But Mr. Buck had other ideas. He kicked the nimrod in the arm, driving the knife through his hand, then left for parts unknown."—William T. Campbell, District 10, Division "F".

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Total prosecutions during December, 1942 amounted to 565, including cash penalties in the amount of $16,221.00. There were 561 defendants convicted and four acquitted.

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"Robert Port, Saxton, a Deputy Game Protector, was checking a rabbit hunter one evening. He asked the hunter, who was from Hopewell, how many rabbits he had killed that day. The hunter replied, "Nine." "Nine," said Bob, "Yes, there they are. Four old ones, one a mother rabbit with five young about ready to arrive in this world." —John S. Dittmar, Division "D"

# FIELD NOTES

"On Sunday, November 29, 1942, the people of Connellsville were very much alarmed to see a very nice buck scurrying up and down the streets. Confused, the animal plunged through a large store window and, after getting out of that, eventually found its way back to the mountains again."—Game Protector Lester E. Sheaffer, District 14, Division "G."

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"The outstanding feature in the wildlife setup in Greene County during December, 1942, was the appearance of a bear in Centre Township. A farmer's wife saw it first and was very much surprised and frightened. The bear later left tracks around the house of the farmer, who had butchered and left some intestines lie about. About two weeks later a trapper reported seeing it about five miles from that spot and was so scared that he lost his rifle. So far the bear has not done any damage that has been reported. However, the folks in that section are not very well pleased with bruin so close to home."—Game Protector John F. Blair, District 13, Division "G".

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Melvin C. Miller, 2409 Canby Street, Penbrook, Scout Master, Troop 47, Penbrook Church of God, while hunting in the vicinity of Colonial Park on November 23, shot rabbit with a bow and arrow. Miller is a member of the Susquehannock Archers of Harrisburg. He has been shooting with bow and arrow since 1938.

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Mrs. Syrena Eckenrode, who lives along Littlestown-Gettysburg road on a turkey farm, received 500 day-old pheasant chicks of which 438 were raised to six-weeks of age when released. In addition to the $.40 per bird raised paid by the Game Commission, the Littlestown Fish & Game Association added $.10 per bird as an inducement to get farmers on the Cooperative Farm-Game Projects to raise pheasants.

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"George Kirk and his uncle Wayne Kirk, both of East Waterford, Juniata County, were fox hunting on January 9. They were on the trail of a fox which was traveling as a fox usually does when on the search for food. Suddenly the tracks of the fox showed that something had happened causing it to travel at terrific speed with very long jumps. Within a very short distance a deer track joined in the trail. It, too, was going with speed, showing signs, according to Kirk's story, of trying to jump on the fox at different times. The chase only lasted for a short distance when the fox found a groundhog hole to seek shelter thus ending the chase, and ending the life of the fox after the hunters came upon the shelter."—C. V. Long, East Waterford.

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"While traveling through Great Bend Township, Susquehanna County, I was told by a farmer that some type of a funny little duck had taken up quarters with his flock of tame ducks. He also asked me to look at the duck and possibly identify it for him.

"Investigation proved it to be a mature male wood duck apparently in good health. When approaching the flock it made no effort to escape other than walk away with the tame ducks. During the day it would spend its time on the pond with the other ducks. At night it would return to the buildings along with the flock."—Game Protector H. F. Hoffman, District 4, Division "B".

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"On December 30, a Sharp-shinned Hawk attacked several small birds in my back yard where I had put out some grain for them. Due to the thickness of the Lilac bush the hawk was unable to get any of the birds, and after making a great fuss around the bush he left for parts unknown."

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"On Sunday, December 27, the Bird Club members in this section observed among other birds one robin, two male bluebirds and a song sparrow. Rather unusual for this time of year."

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"Many thanks to the hunters in this section who turned over their deerskins to make gloves and vests for the service men to keep comfortable while making it uncomfortable for the enemy."—Game Protector Francis E. Jenkins, District 5, Division "B".

W. J. Starrett

## CHAMPION SUBSCRIPTION GETTER

**W. J. Starrett, Boyertown, Pa., a License Issuing Agent of the Department of Revenue, is leading the ranks of those agents securing subscriptions to the PENNSYLVANIA GAME NEWS. It is not unusual to receive fifty or more subscriptions from Mr. Starrett in a single report. His score is over 200 subscriptions since the 1942 hunting licenses were made available.**

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**During the calendar year 1942, title was secured for 34,506.15 acres of State Game Lands, which brought the aggregate area to 721,763.28 acres.**

## READING MAN HEADS WALTONIANS

Meeting yesterday at the Berkshire Hotel, the Pennsylvania Division of the Izaak Walton League of America elected John P. Deck, of the Reading Chapter, to the office of state president. Deck will complete the unexpired term of Harry W. Stark, of York County, who resigned because of ill health.

There were two sessions of the state convention yesterday with delegates from Connellsville, Delaware County, Lebanon, Philadelphia, Pittsburgh, York and Berks, in attendance.

The highlight of the meeting was an address by Kenneth A. Reid, national executive secretary of the Izaak Walton League, whose topic was "The Izaak Walton League in War and Peace."

At the conclusion of Reid's speech, the state chapters went on record favoring these resolutions:

That proper treatment of municipal sewage either through the facilities of a municipal plant, connection with a metropolitan plant or bona fide plans for such approveed installations, be a condition of eligibility for participation of any municipality or institution having sewer facilities in any public works program involving federal or state loans or grants.

*Watch Road Projects*

That all agences engaged in road construction be urged to take cognizance of the adverse effects of roads in hilly or mountain country in accelerating runoff and silting of stream beds and take all possible steps to minimize these undesirable effects.

That the Pennsylvania Department of Forests and Waters be urged to strengthen its policy in respect to the protection of waterways by inserting in all timber sale contracts on all national forests, specific provisions for safeguarding the shorelines of all waterways.

That the several state governments be urged to formulate under the authority of their zoning laws or other authorities regulations for protecting of shoreline timber along waterways on private as well as state land.

That the state highway department be urged to cooperate in the creation of small "breather" type reservoirs as an important contribution to a sound and comprehensive public water conservation program.

## SAVE!

**SAVE YOUR EMPTY SHELL CASES FOR FUTURE SCRAP DRIVES**

**SAVE THE CARCASSES OF FUR-BEARING ANIMALS FOR THE FAT AND GLYCERINE SO BADLY NEEDED**

**SAVE LIVES—HUNT SAFELY-RETURN SAFELY**

# The White Antlered Buck

*(Continued from page 5)*

remote ridge. The big trek into the deer camps was well underway.

While there was still a faint glimmer of daylight a couple of rifle shots awakened long forgotten echoes in that long, narrow valley; the shots themselves seemingly emanating from the environs of the big swamp.

"Probably some white livered so-and-so trying to pot his deer before morning," growled George.

"Or someone testing his sights," added Bill with his usual magnanimity.

"Not with the reports coming that closely together—and besides, it's too dark to do any testing," said George with finality.

My thoughts turned to the white antlered buck and I wondered.

Long before daylight on the following morning, we got breakfast, packed lunches and formulated plans.

Individual still hunting in definitely assigned areas was the order of the day; our guess being that by nine or ten o'clock at the most, the deer would be well on the move what with the drives and shooting going on all over the countryside.

"And don't forget, gang," reminded Bill who had been appointed chief in charge of the day's activities, "be here at the cabin by three o'clock. If you're prompt there'll probably be time enough before dark to stage three or even four small drives."

With nods of assent we made off through the gloom for our respective assignments. A streak of reddish light above the trees presaged dawn.

Those of you who have been in the deer woods when shooting legally opens know what it is like. But regardless of laws, a few widely scattered shots begin to be heard at the first hint of dawn. They probably originate from those impatient or excitable individuals who must shoot at any moving shadow, actual or imaginary, to relieve their pent feelings. Then, too, there are the deliberate law breakers, those vermin of the mountains who try to get the jump on their law abiding brethren.

When the season actually comes into its own the outburst of firearms compares favorably with what would have been considered as snappy action on the western front (1918 vintage). Anyway, the welkin rings.

All day long deer milled all about us or vice versa. Time and again I caught fleeting glimpses of the animals, probably wondering what had been turned loose in their hitherto peaceful hills.

I saw one legal deer brought down with such despatch and efficiency that it almost left me stunned.

While watching a quartet of deer and attempting to determine their sex I saw a movement over to my right.

Turning, I saw an individual dressed in a buckskin shirt, fringe and all, slip out of a thicket of rhododendron and quickly raise and shoot his rifle. At the report one of the four deer buckled on the spot while the others fled.

Subsequently, the dead animal, a nice six pointer, proved to be nearer me than to the huntsman with the tricky getup.

"Shades of Daniel Boone," I muttered wonderingly to myself as I again went on

**George Mellinger of Greencastle, with a fine 140 pound 10-point killed the first day in Path Valley, near Mettle.**

about my business.

Shortly after three o'clock all of us were assembled at headquarters anxious to score after a day of blanks. The idea was to stage as many drives as the remaining hours of daylight would permit.

In drawing lots for turns at watches I garnered number two position. George as number one selected a spot in the dense cover a couple of hundred feet from our headquarters.

Those of us doing the driving spread out and went back into the forest approximately half a mile. There we turned and not too noisily began circling back. We carried our rifles for in this modified form of still hunting one never knows when he may jump quarry.

Some fifteen or twenty minutes later, as I was passing through a stand of young hemlocks I was startled by a shot sounding nearby. This turn in events prompted me to get into the clear as quickly as possible.

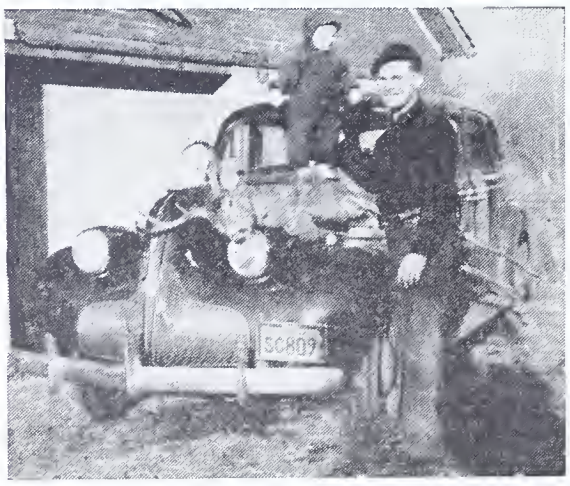
A few score yards from the clearing I glimpsed the black buck shoot out of the hemlocks and streak for safer cover. I whipped my rifle into position even as the animal disappeared over a hillock. A moment later Chet came running up.

"Did you see him?" he panted, and ruefully added, "I missed him."

"I'll say I did and heading straight for George."

Just then the latter's rifle broke the silence that had suddenly descended.

When we reached George we found him



**Hunters—present and future. Donald C. Graybill, Quarryville, with nice 8-point killed in Potter County, on December 1. The "future" nimrod is his little son.**

scanning the ground near the big rock adjacent the cabin.

"Did you get him?" Chet and I asked in unison.

"No," George hesitantly replied, "but I'd swear that he didn't come out from behind this rock. At least I didn't see him," he amended.

I made a cursory examination of the ground. "What did you make out?" I asked.

"Nothing," came the quick rejoinder.

In a few minutes we worked around to the side of the old building where Bill shortly joined us.

After consuming some fifteen additional minutes to the fruitless search for signs we scattered for the second drive.

In the second sortie Bill succeeded in bagging a small but legal buck although he was one of the drivers. I had seen the entire performance from my stand in the clearing. The little buck ran before the drivers along the edge of the woodland. Then he paused and took a few hesitant steps into the clearing. Changing his mind he turned and began retracing his steps. A moment later Bill nailed him.

Because of the amount of time consumed in the first two drives together with the rapidly diminishing light it seemed unwise to launch a third, so we called it a day and returned to the nearby camp. At least, we had meat.

While preparing supper and making things snug for the night the conversation naturally gyrated about the black buck's getaway.

George who was busily engaged tinkering with the gasoline stove paused long enough to reaffirm his views. "I'm telling you he never came out from behind that rock," he contended.

"Well, he couldn't have holed up or sprouted wings or something." This from Chet.

George ignored the remark. "That's my story and I'm sticking to it," he said.

Bill was more diagnostic. "You probably know that he could have passed across that gap between the rock and the cover beyond quicker than a wink."

"So what?"

"Why, you might have blinked or turned your head or done a dozen other things that might have taken your eyes off the ball," ventured Bill.

"Yes, I know," George patiently admitted, "but the point is that I didn't. After the first shot I literally glued my eyes on the only place where he could have appeared." George paused and a queer look bespread his face. "Unless," he slowly added, "unless—."

It was too much for Chet. "Unless what?" he broke in.

"Say," George cried as he got to his feet, "the top of that rock is as large as a small dance hall and bristling with cover. I've a hunch," he suddenly added, grabbing up his flashlight.

In a moment he was outside with Bill and Chet at his heels. Seconds later I heard them scrambling up the sides of the rock.

Then Chet, whose initial burst of enthusiasm had apparently collapsed, yelled, "Hey you guys, that deer wouldn't be up there now."

"Aw, come on," urged George, "we're just looking for signs."

I had dropped my culinary duties and was about to slip out through the improvised door when I was arrested by a sudden heavy clatter on the floor above. The queer sound swept rapidly across the floor and then as suddenly stopped at a point over the door.

At virtually the same moment a cry of "There he goes!" from Chet caused me to flash the door open in time for me to see a black shape disappear into the night.

Well, it turned out that Chet, who had remained behind, saw the buck step across the narrow gap between the second floor rear window and the rock and disappear into the loft.

"For a second I was too surprised to do anything," Chet excitedly continued, "but when I saw him leap out of the front window I managed to let out a yell."

"Are you sure it was the black fellow?" asked George.

"It certainly was," Chet asserted. "Why, you two were flashing lights all over the place. Any one could have seen him."

Then, I related what I had heard and seen.

You can well imagine the excitement and the tall talk that prevailed that night. By the time we took to our bags the buck was as good as bagged. Indeed, a couple of us already visualized how he would look on a favored wall in our respective homes.

Now for the pay-off. During our week's outing we hunted far and near; far beyond our originally planned limits, near, so as to constantly check any and all possibilities. But in spite of everything do you suppose we again set eyes on that buck? A raucous NO.

So far as we were concerned this modern version went its fictional counterpart one better. He had the good sense to leave those parts or hole up for the duration.

But, here's that well-known fly in the salve, and a heat wave warms my chilled spine every time I think of it. The chances are that the white antlered buck was probably bagged by some Nimrod who knew nothing of the unusual glamour and romance associated with the creature.

But George's retort to my plaint was an unclassical "So what!"

# AN OLD COONHOUND TALKS

By Paul P. Prugh

JANUARY seventeenth the date of this writing. Last night a wet stormy night, not fit for man or dog to be out, saw the last of 'coon season for another year. Well anyway I was working night turn in a factory for Uncle Sam, which was some compensation for not being able to hunt this last bad night. That seemed to be the way our luck had run all Fall. When the weather was fit to hunt I was on night turn, and when I could hunt the weather would not permit. As a result our 'coon hunts were few and far between.

As I approached the kennel, where Old Bill and Ace held forth this wet Sunday morning, I was spellbound at the growling, cursing, and mutterings emerging from its white painted walls. At almost any minute I expected to see smoke teeming out around the eaves, for such fiery mutterings had never before beat upon my eardrums. I knew from the voice it was Old Bill who was on the rampage, and I'll tell you it was a shame for any respectable dog to swear that way, especially on the Sabbath.

When I could stand it no longer I called him out to inquire what it was all about and to reprimand him for using such language in front of our puppy, Black Ace.

"Bill," I says, "you should be ashamed; any dog as old as you are to let your temper run off that way. What in the wide world is wrong with you?"

It was kind of amusing the way he looked at me. His ears dropped, and that old tail began to wag, and he says, "Well Boss, forgive me but I knew last night was the last night we could hunt for another long year, and I was just lying in there thinking of this year's hunting and the longer I thought the madder I got, so I just had to blow off some steam. You know this year it was so late when we started to hunt, so cold and stormy the nights we were out. I couldn't find 'coon for you, and when I did it was hard to trail, and I know Ace and I both tried to do our best. One night I know our noses ached from the cold biting frost and I don't know how you kept from freezing standing around waiting for us to try to unravel that trail. Another night the wind got up 'till I know you couldn't hear us over the next hill, and we had to quit; and that moonlight night we should have stayed at home for no 'coon were running. How come we had to hunt that kind of weather this year 'Boss,' he wanted to know, it wasn't that way last year or the year before."

"Bill," I says, "there's some things we can't understand, and we can't always do things when we want to. Each year things change. We have laws that say when we can hunt, and we can't make the weather suit us. It just happened this year that those laws said we couldn't hunt until the weather was too bad for our kind of hunting, and then Bill you know there's a war on now, and some of those nights that I saw you sniff the breeze so wistfully, I had to work for our Uncle Sammy, and couldn't take you hunting."

"Yes," he said, "Ace and I know about the war. Our dog feed isn't what it used to be, and I guess you won't be able to get us any pretty soon. Don't know what we'll eat then but I guess you'll manage some way; you never did let us go hungry."

I always liked Old Bill for that. He was such a trusting soul. Whatever I did or said was all right with him.

Just then Black Ace came out and started to rehearse the whole thing again. I told him to shut up pretty quick, that Bill had said enough for both of them, and that he wasn't old enough to use such language anyway.

Bill tried to explain to him what I had just told him and, although Ace did look a little befuddled, I think he understood in a way.

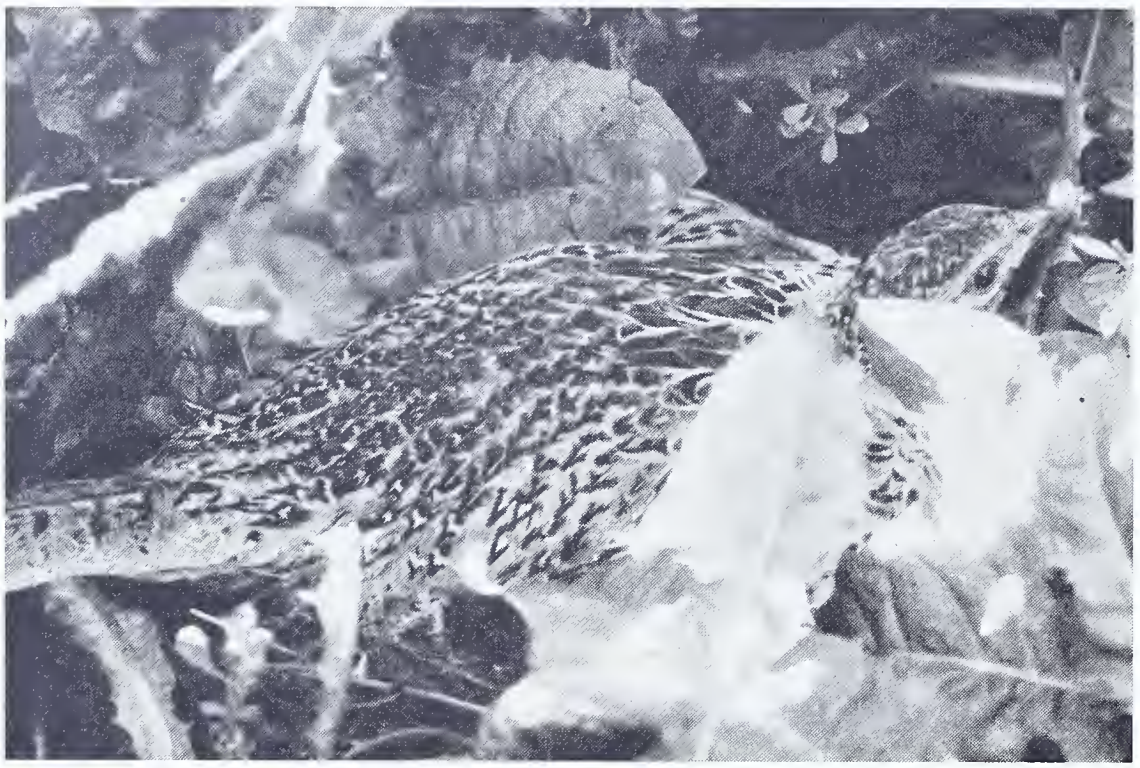
"Well boys," I told them, "we'll all hope that when the leaves come tumbling down again things will be different than this year. We'll hope that this war is over, and that we can hunt before the cold icy blasts of winter start to blow."

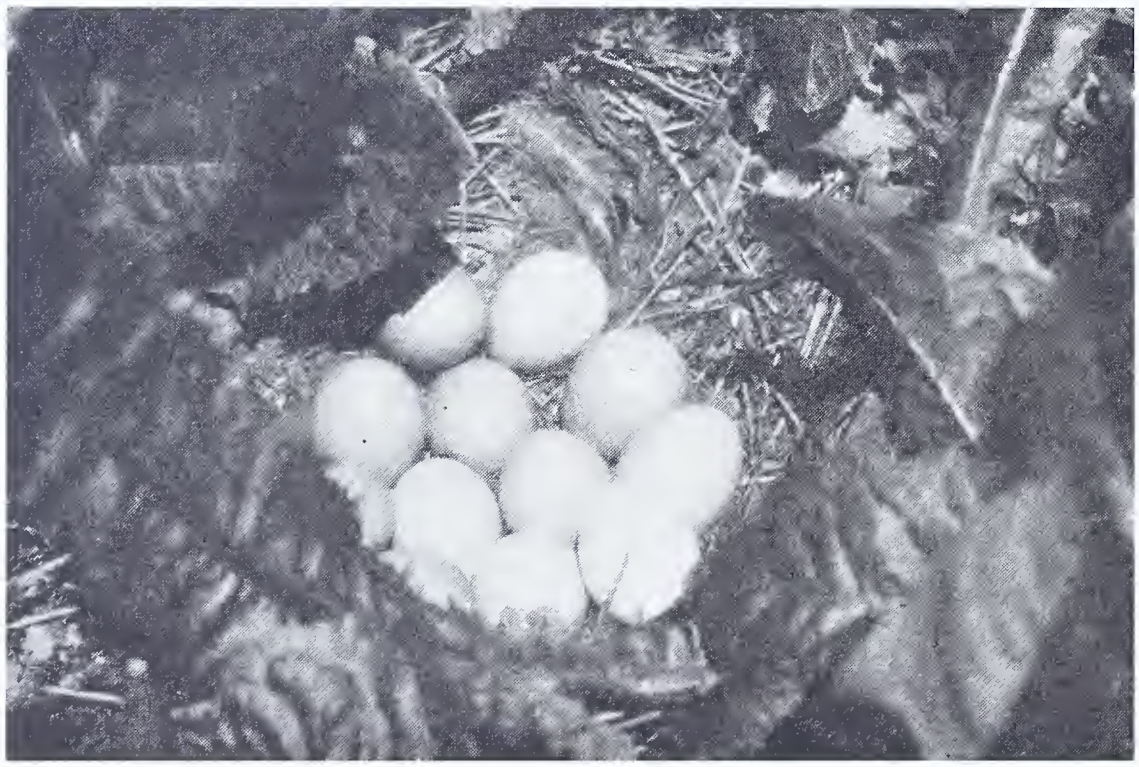
Old Bill, said, a grin creeping over his grizzled muzzle, "they better be different or I'm going to start hunting rabbits," and with that turned and went into his kennel.

"You'd better not," I called after him, "or you'll hunt them alone." We'll still hunt 'coon won't we Acey Boy, to which the pup agreed.

I tell you I never saw that old dog so hot under the collar before though. It wasn't like Old Bill who sat at the trunks of the great oaks singing, "Praise the Lord and Pass the Ammunition," but I guess he'll sleep it off until another 'coon season rolls around.

**The above fine trophies were killed by two Millersburg sportsmen, Thompson Haine, left, who bagged his in Powls Valley, Dauphin County, on December 9, and Paul Shaffer, who made his kill near McClellan, same county, on December 10.**





# Some Census Methods for Game

*(Continued from page 11)*

closing of the season in time for official notices and news releases.

A variation of the line count method was used by Pierce E. Randall, in Lehigh County, Pennsylvania during the fall of 1938. This system of ringneck pheasant census was developed in Iowa in 1936 by Bennett and Hendrickson. In brief, the method used was based on the following conclusions

(1) The number of pheasants seen in early morning in September and October along gravel roads over a 20-mile route was used to compute the total population.

(2) Eight to ten birds to a mile, seen from an automobile traveling at 20 miles per hour between 6:00 A.M. and 8:00 A.M., indicated a population of one bird to four or five acres. Two birds to a mile indicated a population of one third to seven or to nine acres. One bird to the mile indicated a population of one bird to about 18 acres.

The system is based on the fact that ring-necked pheasants move about considerably in the morning and stay in the open fields until the dew or rain has evaporated to such an extent that the birds can move into corn fields without becoming soaked. Birds also linger along the roads in order to obtain gravel and soil particles.

This technique has proved practical but it will work only in ideal pheasant country, and can be used only early in the morning during the fall months when the vegetation is "dripping" with moisture. (10)

In New York, a census of cyclic game species was taken on two different areas to analyze the value of refuges. During 1935, 1936, and 1937 censuses were taken on two areas alike in size, cover types, and topography, but one was a refuge and the other a public hunting area.

The complete strip method, including all of the coverts, was used throughout each area. A crew of from three to six men made up of a game technician assisted by selected CCC boys did the censusing. Ruffed grouse, cottontail rabbits, and gray squirrels were observed and data taken on each. The grouse data consisted of birds flushed, tracks, droppings locations, and birds found killed. Estimations of the grouse populations were made from this data and showed that

*(Continued on next page)*

**This set of fine pictures, submitted by L. W. Knoblach, Chairman of the Educational Committee of the Federation of Sportsmen's Clubs of Lehigh County, was taken on a farm near Schnecksville, Pa., on July 4. The first picture, taken at about 11:00 a.m., shows the hen pheasant setting on her nest. The next photo, taken about five minutes later, shows an even dozen eggs, some in the process of being pecked open. The third picture, taken about 5:00 p.m., shows Mrs. Pheasant's filled household.**

**The pictures were taken by Mr. George E. Phillips, well known photo supply dealer in Allentown, Pa., also a member of the Lehigh County Fish and Game Protective Association, who is deeply interested in wildlife. For his photographic patience he was rewarded with these unusual pictures.**

"Are we to take this to mean your wife doesn't want you to go with us to the turkey shoot, Mortimer?"

## An Unforgettable Character

*(Continued from page 18)*

afternoon; but, when he finally did start that fox did not have time to lick off the scent because Old Tom was right on his tail and at two-thirty we had the old boy in the bag. I've been sorry ever since that the chase didn't last until three o'clock, because I know Old Tom would have been able to follow that fox if he licked the scent off a dozen times."

From what I had seen of Old Tom's work I agreed with Mann that the fox who could out-guess Old Tom just didn't live in those parts. Being satisfied with having proven to me that Tom was the greatest dog on earth we started our trek towards his home, where his wife had a luncheon fit for any King—especially her home-made bread.

"Eyes front, Yardbird!"

# Some Census Methods for Game

*(Continued from page 31)*

the population per acre of cover was higher on the public shooting grounds during 1935 and 1936, and just a little lower than the refuge population during 1936. The data taken on rabbits and squirrels consisted of animals seen, tracks, and kills found; but their population could not be accurately worked out since the census method was not well adapted to these species.

From the results of this study, the conclusion is drawn that the refuges are of no value in maintaining populations of cyclic species such as the ruffed grouse, cottontail rabbit, and gray squirrel. Fluctuations occur on both protected and unprotected areas. Refuges seem only to function as a prevention of extermination of the species, and not as a reservoir whose overflow will furnish continued hunting on surrounding lands. (5)

King developed a census technique, in Minnesota during 1931, by taking brood counts of ruffed grouse on sample strips in an area. Strips on the 40 lines were run arbitrarily at right angles to the topography. The census was taken during the week of June 10 when nearly all the ruffed grouse broods were hatched. The number of feigning hens, apparently with broods, and the flushing distance was recorded. Then by taking the width of the "effective strip" and computing it as a percentage of the total area the total population was estimated. The cocks are not counted in the hen tally. They can be distinguished by their failure to feign wounded and by the greater distance flown.

The greatest weakness of this method is the assumption that all hens have mated and that all of the broods have hatched. Another source of error enters in estimating the width of the flushing strip. In bad weather conditions this system will not give a true estimate because the width of the effective strip may be nearly zero. To have a complete census the male population must be considered. The cocks are estimated to be equal to the hens or in a ratio of 1:1. This may not be the case and gives rise to another possible error. (8)

J. P. Miller, while working for the Biological Survey, censused grouse at Mill Village, New Hampshire. He used a system of cross-hatching with line intervals of four hundred feet. The censusing was done by CCC men at as regular intervals as possible. "They cover the tract by irregular lines of travel until they find the ruffed grouse, which are the main interest from the management standpoint. They record on a mimeographed form all the signs noted for all species. These notes are referenced to the grid lines and are transcribed in the office to the seasonal type maps. Repeated observations have shown how many grouse are in a particular area, and have been the means of tracing not only the total populations through the year but also the mortality and, in many cases, its causes." (9)

The greatest error in this system is that the same grouse may be counted more than once during the same day. In addition, since the men cover the area by irregular lines, they may miss or avoid certain types of cover and therefore not get a true census.

"It's a new hunting dog my husband is training himself."

**Measurements by Ratios Based on Trapping, Banding, and Later Recapture of Sample Individuals**

Whenever trapping, banding or marking can be done with a species, the chance should never be missed because the results may give valuable information on populations, mobility, sex ratios, and habits of the species.

A resourceful method of censusing ducks has been developed by Lincoln. He uses the banding returns as an index to census the ducks for the whole continent. It was observed that the total number of birds banded, the percentage of bands returned after the hunting season is constant from year to year, and average around 12%. The percentage of banded ducks killed is probably the same as the percentage of non-banded. If the hunters turn in a record of their annual bag, a continental census can be computed. The number banded; total population—the number of banded kills; the total kill.

Lincoln's system of continental duck census is hindered by the lack of unreported bands killed and the unreported unbanded kill.

"This concept, which we may call the Lincoln Index, is one of the most important intellectual contributions so far made to the art of game management." (8)

The same principle was used by Stoddard in Georgia. He trapped and banded large quantities of quail. By noting the total kill as well as the banded kill during the hunting season, the density of the population was computed.

Ralph T. King, in his studies of the ruffed grouse in Minnesota, developed a method of trapping and feathermarking this game bird. Since grouse are woodland birds, and not acquainted with cultivated grains, it was difficult to find a suitable bait. After trying various mixtures of food, King found that ruffed grouse would feed on a mixture of corn, wheat, or rye, and buckwheat after the birds learned that these materials were

*(Continued on page 31)*

# Our Heritage to Safeguard

*(Continued from page 13)*

fend ourselves against ideals, ideas, sophistries and proposals of people of that character. They are not always easy to detect.

Therefore, I want to say that, in my opinion, and I am sure in your opinion, we must "carry on" throughout the war. We must guard our heritage.

Some people seem to think that is not the alternative and that losers do not perish. If you cast your mind back over the pages of history, you will see that many a great social group has perished completely and no longer is to be found on the face of the earth. Just to mention one, look at Carthage, and that is not the only instance that you can easily find where a great and powerful nation, as it was at one time, has been—not only defeated—but utterly destroyed—or look at Austria for a more modern example. We face those dangers just as they did and we cannot, if we win this war, say that we have won it if we have done so at the sacrifice of all of our natural wealth and our resources. For our own life's sake we must carry on and, as we have marked off for ourselves this segment of human interest—our reproducible natural resources—we must stand by with every power and every resource we know and double our activity to defend at home while we prosecute the war abroad.

# The Boy Scouts and the Sportsmen

*(Continued from page 12)*

jured by a fish hook as an animal would be. If the penetration of a hook caused them any pain certainly they would not pull and fight against the tense pressure of the line. If you were firmly hooked and someone started to pull, you would not run against the strain but you would go with it to try to eliminate the strain. Unfortunately the same condition does not exist for the hunter. When the gun cracks and the game crumples its usefulness to provide sport is forever gone. Of course, it is excellent to eat, but that is secondary to the true sportsman.

On occasion it has been said that the sportsmen are a selfish group. To this I cannot agree. I have seen men diligently feeding a type of game during the toughest part of the winter which they do not even hunt. Some have contacted land owners for one reason or another in a section where they never hunt or fish or ever expect to. Still others gladly work hard for their local sportsmen's association and there is absolutely no tangible reward there. Personal satisfaction is all that is necessary. Discomfort and inconvenience will gladly be experienced by them if they think they are doing something for the good of the cause.

The average Pennsylvania hunter and fisherman looks at his sport in the right light. He knows that all things are governed by the laws of relativity. A ten point 175 pound buck, a black bear, or a two pound trout from Pennsylvania are treasured highly because they are a scarce article. This same game would be nothing to brag about at all in the north country where anyone of the three is common.

BUY—
WAR
BONDS
AND
STAMPS

Flushing and shooting game and playing and landing fish is thrilling, but this is only part of the sport. A fascinating part is the fact that we can never learn all there is to know about it; hence there is no person who is a complete master. At times success and egotism get the better of an individual and he believes he has reached the pinnacle. All the problems have been solved; any fish or any piece of game can be taken. Such a viewpoint is but short-lived for sooner or later this individual will find himself situated where his best efforts are to no avail in spite of the signs or feeding activity before him. Visions crumble, theories are exploded. Fortunately the sport is complicated and uncertain. If we could completely master it and secure anything we go after at any time as long as there is any left, it would become tiresome and we would soon search for new fields to conquer. Mystery, uncertainty and thrills, always tempting the great unknown; these are the lures of hunting and fishing.

Today in Pennsylvania the combined number of sportsmen and boy scouts is past the million mark. The greatest difference between the two groups is the difference in the ages of the respective members. Many and many a scout in the past has become an ardent sportsman and of course this same development will continue in the future. Many and many a scout will be bitten by the hunting and fishing bug and he will contract that glorious disease hunting and fishing fever, which thank goodness has no cure.

I sincerely believe that the sportsmen and the Boy Scouts are more closely allied than any other two separate and distinct groups. Anything which is said before one is of interest to the other. Our common goal is to conserve and build so that down through the years we, and those who follow us, may get maximum pleasure from bounteous nature. It is this feeling of common interests which makes it a pleasure for me to appear on this program of the Boy Scouts in behalf of the sportsmen.

Scouts play an important part in the conservation program by building and erecting bird boxes, putting up posters, helping control forest fires, etc.

# The Log of Rattlesnake Shack

*(Continued from page 9)*

"Thursday 9. Snow flurries and cloudy. Radio good. (Had a small set with ear phones).

"Friday 10. 20° windy in morning. 5 P.M. still windy. Stayed up till 4 A.M. windy as H——L!

"Saturday 11. Up 9:30. Temperature 21°. Water and milk frozen in shack.

"Sunday 12. Up 9:15. Temperature 27°. Cloudy.

"Monday 13. Started to rain 9:30 A.M. Hard rain, thunder and lightning 12 midnight. Big storm! Bad!

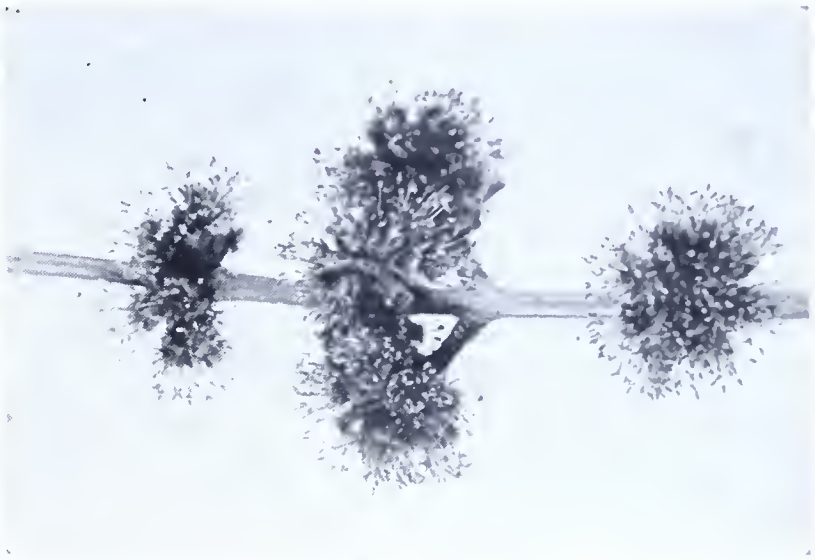
"Tuesday 14. Partly cloudy. 7 P.M. rain—lightning bad. Bed 1:15 A.M. Queer noise in bottom. Rain steady, no lightning now —later?

"Wednesday 15. Cloudy and windy with showers. (Also 16, 17, 18, 19, 20, 21. Showers or raining.)

"Wednesday 22. Snow flurries. Spitting snow all day. Caught mouse. (Seems he took to trapping) 11:45 another mouse.

"Thursday 23. 7:45 A.M. light snow 32° 10 A.M. Snow getting heavier. Bed 11:30. Still spitting snow.

"Friday 24. Up 8 A.M. Light snow falling. Lunch about noon and left. Oawah!"



Red Maple Bloom.

# Many Waterfalls in Pennsylvania

*(Continued from page 15)*

a run descending a thin slit in a cliff. The short steep hollows for miles around must also have cascades.

Two or more small runs entering Pine Creek in Leonard Harrison State Park are a long string of cascades, and many other cascades plunge down the bluffs of Pine Creek farther down its valley.

### Wayne County

At Hawley, Wallenpaupack Creek plunges "over cascades 5 to 60 feet high until it accomplishes a descent of 260 feet in a distance of only one miles, the greater portion of the descent being made within only a few hundred feet over the cliffs of Paupack Falls." The rocks are flat-lying Catskill sandstone. These falls are close beside U. S. Route 6 but behind a large mill. The falls are on the line between Monroe and Pike Counties. Wallenpaupack Creek empties into Lackawaxen River a mile below the falls.

Dyeberry Creek makes a plunge of 25 feet at Tanners Falls, and many ravines in the bluff along Delaware River between Equinunk and Masthope have abundant cascades.

### Wyoming County

Buttermilk Creek in Falls Township flows south from Mill City to enter Susquehanna River about 10 miles above Pittston. One-third of a mile from the mouth is Buttermilk Falls, by which the creek descends in four successive leaps of 10, 15, 25, and 25 feet through a vertical distance of 80 feet over hard Catskill sandstones, in a horizontal distance of 200 yards, through a deep narrow gorge. Right at the mouth are two other cascades of 20 and 35 feet, the last one dropping directly onto the bed of the river. The entire descent is from 715 to 560 feet or 155 feet.

Osterhout Creek empties into the Susquehanna at the southeast corner of Tunkhannock Township. About three-quarters of a mile from its mouth the creek falls vertically 30 feet in cascades, giving splendid water power.

In Nicholson Township, high cascades occur on Stephens Run, which mouths in Tunkhannock Creek two miles below Nicholson. One of the cascades near the mouth is 75 feet high.

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## *Book Review*

### The Ducks, Geese and Swans of North America

This book, written by F. H. Kortright and illustrated by T. M. Shortt, is nothing short of a waterfowler's bible . . . a rogue's gallery of every duck, goose and swan that dwells on or visits the continent of North America. The naturalist and scientist will likewise find it a treasure chest of wisdom, containing many facts previously unrecorded. Its 36 full-page color illustrations together with more than 200 line drawings and maps graphically enliven 450 pages of dramatic text. The depiction of various year-round plumages in full colors leaves nothing for guess work, and the silhouette patterns of each species in flight and on the water, together with simple and concisely clear "keys" make identification of all waterfowl rapid and positive.

The author, Francis H. Kortright, is a Canadian sportsman who has observed waterfowl since his earliest boyhood. His extensive knowledge together with his delightful manner of writing make learning a pleasant fireside hobby. The artist, Terry M. Shortt, is widely acclaimed as the Audubon of Canada; the strokes of his magic brush graphically blend life into paints, and his illustrations are veritably three dimensional.

Chapters by Dr. Ira N. Gabrielson, Director of the U. S. Fish and Wildlife Service, and Frederick C. Lincoln, noted ornithologist, contribute immeasurably to make this the book-of-the-year for sportsmen, naturalists and wildlife scientists.

The publisher, the American Wildlife Institute, is a non-profit, non-partisan corporation widely known for the advancement of game management and wildlife conservation through research and education.

Price: Full-morocco bound, autographed, numbered, limited deluxe edition $10.00; Novelex-cloth bound, regular library edition $4.50 (in Canada $5.00); Available, postpaid, from: American Wildlife Institute, Investment Building, Washington, D. C.

## Hitch-Hiking Hunter Wants Lift With Deer

Just to prove there can be a new wrinkle in big game hunting, as well as odd requests a member of the State Motor Police encounters, Pvt. Ed Burlingame yesterday met up with the first nimrod in his memory who was seeking a "lift" not only for himself, but a huge deer.

Burlingame was patrolling Route 307, East of Lake Scranton when he got the halt signal from the red-capped huntsman. He stopped to discover an antler parked a short distance away. The lucky chap explained that he had hitch-hiked a ride up and now, having bagged his alloted quota, would welcome aid in hauling his guest home.—*Scranton Tribune.*

## Apology

The photo on page 3 of the February issue should have been credited to lancaster Newspaper Inc., Lancaster, Pa., by M. J. Luttringer.

# The Black Bear

*(Continued from page 7)*

are stripped from the bushes, as they are drawn through the mouth. Some of the smaller trees, such as Juneberry, are straddled and bent to the ground so that the fruit can be reached. In one State it was observed that they eat of the Cascara tree fruit. This has a very strong purgative effect, and the reason for partaking of such is not known. It may be for a tonic, or probably just for 'something different.' The larger animals it catches are killed by striking with the forepaws. Rarely do they cache a kill. Moose, Caribou and Deer are killed whenever such flesh is desired and obtainable. Cannibalism is known to occur, although it is rare.

The bear presents no food problem during the cold months as it hibernates in the winter, from about December 1 to the time of nice weather in the spring. Hibernation takes place anywhere they can get privacy and protection. They have been found hibernating in caves, rock crevices, and under trees, in slight depressions in the ground. Early in the hibernation period, the bear is not so soundly asleep as is the woodchuck, and can be roused. But the sleep becomes more and more of a stupor as it progresses. If a bear is fat, it may fast for several weeks before going into hibernation. They have been killed several weeks prior to this occasion and their digestive tract was found to be totally empty. An old male may not den up, if food is readily available.

Black bears will travel both day and night, and generally, alone as they are very solitary animals. They are very wary, and shy of anything looking strange. If a noise is heard, they will stop until the source is located, then proceed, in haste, the other way. Their motto, one which has kept them from becoming all 'shot off' seems to be 'In case of doubt, run!' Doubt nearly always prevails, for they surely can get 'places' in a hurry, away from the hunter they see. Their mentality is very good, but not so good as that of a dog, fox, or wolf. Eyes are not so keen, but nose and ears are far better than those senses in man. A bear will work long and hard at any mischief, but hates to work much for business purposes.

Well beaten trails, in use for years, will be found over their range. It seems that animals are superior to man in this respect, in that they choose the best available site for a trail, while man so often does not. The trails of a bear are found to be very low in headroom. Another item of note along their trails, is the 'scratching post.' Three reasons, or rather ideas are given concerning these—

1. May be the same as the urinal post of the dog family.
2. May be as a means to record the growth of an individual.
3. May be a challenge to any other bears passing through.

The males only, do this. The third reason given is supposed to be the same as in the human race, when a man finds something erected by his enemy, or rival, he endeavors to destroy such marker, and replace it with one of his own. In bear country, it is almost impossible to keep a refuge properly posted, as the bears follow the line and tear down, or bend (in case of metal), any or all signs with which they come in contact. A bear is capable of traveling at 30 miles per hour for short distances, when necessary. They do not attack humans readily.

The young are able to climb as soon as they can walk, and all are capable of climbing any tree which will support their weight. In climbing, they ascend spirally, and come down backwards, in contrast to the raccoon or squirrel.

Aside from man, who, through hunting, preys on the bear, there are no real predators, in this State. In places where found, the wolf, cougar, and the grizzly prey on the black bear. The porcupine has been known to kill, indirectly, by the quills festering in the bear's mouth, causing the jaws to swell to such an extent that they could no longer be opened. There is a record of a bear that starved to death in a pool of suckers that he could catch but could not eat.

Pennsylvania has been the leader in management of this animal. Most of the phases of management important to the increase of this animal were laws for its protection. The more important laws are as follows:

1905—First given status as a Big Game Animal, with season from October 1, to March 1, of the following year. It was also in this year that the first Refuge was established in the State.

1909—Law enacted providing that all bear traps must be surrounded by a barrier, tagged with a metal tag bearing name and address of owner in English, and visit sets every 48 hours, at least once in that time. Season from October 1, to January 1 of the following year.

1911—First bag limit established, one to an individual, steel trap outlawed, and season shortened to two months. October 15 to December 15.

1915—Use of pitfalls and pens prohibited.

1917—First camp limit established—three to a camp.

1921—Use of buckshot prohibited for large game. Season shortened, and later—November 1 to December 15.

1925—Cub bears protected.

1935—Use of dogs for taking bear prohibited.

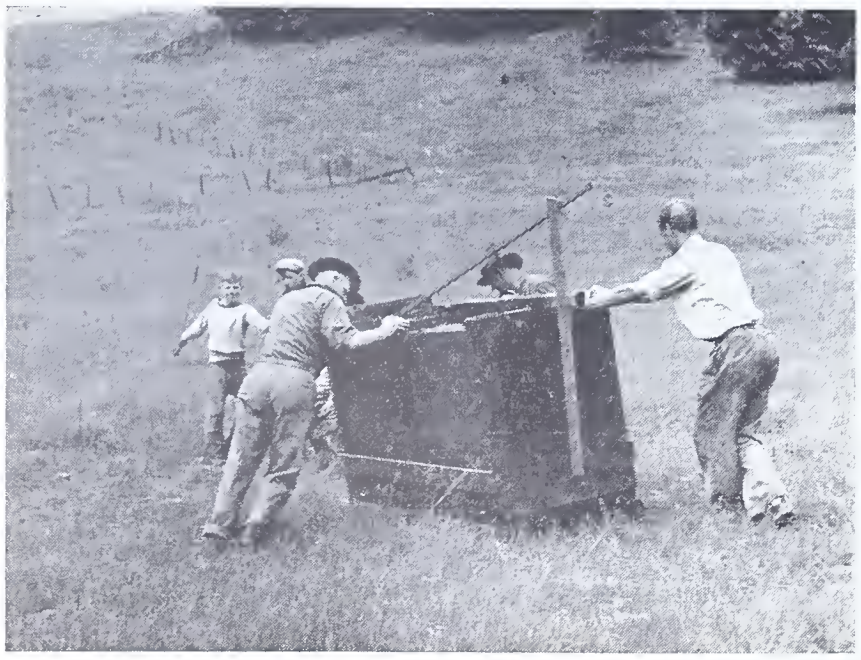
1936—Deer and bear seasons separated.

1937—Camp limit reduced to two.

During the past several years the season has been 4 days, shortly after the middle of November.

Claims for bear damage are paid, there being $3000 per year appropriated for the purpose, but only a little over half of this amount is used. The average amount paid for sheep killed by bears is $6.30, and for a hive of bees is $5.57. The amount paid seems to indicate that the bears are being kept quite well in the forests, where they belong. When hibernating bears are found, propagating area signs are placed around the immediate area, also a fence to inclose the sleeping animal. This practice prevents the public from disturbing them.

Management for bears can be carried on by encouraging the growth of various kinds of berries, also small shrubs that produce food eaten by them. Planting, or releasing, nut-bearing trees, will provide excellent bear food. As mentioned before, this animal has no winter food problem due to its habit of hibernating.



**In past years it was occasionally necessary to remove bears from one section of the State to another. Sometimes this was done in an attempt to restock; sometimes to control damage.**

# Some Census Methods for Game

*(Continued from page 27)*

good to eat. It usually took the birds several weeks to find this out.

The foods were placed in lean-to shelters located in the areas inhabited by grouse during the winter months. Simple funnel entrance traps were placed in the shelters at the time the shelters were built, and the panels constituting the roof were left off. The bait was placed in the funnel end in the trap proper. After the birds began using the shelters as feeding stations, the roof panels were placed on the traps and the actual trapping operations were begun. The birds were feather marked by attaching colored feathers to the birds' tail feathers. Brilliantly dyed white chicken feathers were used. White, red, orange, and yellow proved to be the most satisfactory colors. For further identification leg bands, also, were used.

The birds thus marked could be easily distinguished when flushed and valuable data on the numbers, mobility, and life histories was obtained. (7)

The wild game bird is much harder to successfully trap than our song birds, but nevertheless trapping and marking systems similar to that employed by King have been used on quail, ring-necked pheasants, and Hungarian patridges. The types of traps and bait used vary according to the species but in all instances best results are obtained when trapping is done on the winter range of the birds. This undoubtedly is due to the fact that the birds are hungrier and usually more concentrated during the winter months.

**Observations of the Density of Populations Through the Use of Indices**

Where it is impracticable to use direct enumeration of whole areas or samples; or measurement by ratios based on trapping, banding and later recapture of sample individuals; it is often possible to take a census by the skillful use of indices. "An index to a game population is any condition which can be measured, and which may be expected to vary in proportion to the population which cannot be measured. The index is used to measure the population indirectly. Indices usually yield only relative abundance but sometimes absolute abundance." (8)

The number of drumming males can be used as an index of abundance of ruffed grouse if the sex ratio is known. This method may be used from the first real spring weather until June and the drumming is most regular soon after sunrise, just before sunset, or soon after a storm.

This method is useful with sparce populations, or in areas where the cover is scattered. (11)

An absolute census of red grouse nests is obtained by Scotch gamekeepers by counting the groups of "clocker droppings" along the rivulets. The "clocker droppings" are found to be peculiar in incubating hens. Each hen waters at a fixed point whenever she leaves her nest to feed and there deposits the "clocker." The number of "clocker" groups along the stream gives an index to the population of incubating hens utilizing the adjacent areas. Since the red grouse is monogamous, the total breeding pairs may be determined by this census technique.

Before the total population of an area can be determined under such a system it must be first ascertained if there has been a concentration of nesting which would make the counted area unrepresentative. (8)

The number of birds seen per hour in various habitats may be used as an index to relative abundance of two or more species. Linsdale used birds per day as an index, and Raunkiare used the frequency with which various species occurred in a fixed system of sample plots. These ideas give indices to relative abundance, rather than a true census. (8)

At Petersham, Massachusetts, during the dusk hours of late April and early May, the breeding woodcock were roughly censused by listening for nuptial flights of the male. (11)

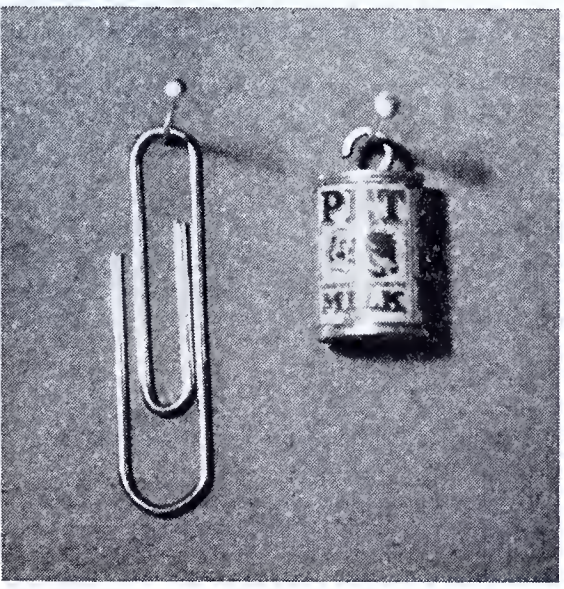
This technique will be satisfactory only when the sex ratio is known, and to avoid duplicates, the singing grounds must be scattered.

Leopold tried "coveys per dog per day" as an index of quail populations in the Lake States, but found it unsatisfactory due to the different types of cover and the varying ability of the dogs. This method could be used on a given area with the same dog and would probably be a good index to compare the poupulations from year to year.

The number of ring-necked pheasants flushed per man-hour by selected parties of hunters was used as an index to density by the Iowa Game Survey during the hunting season of 1932. The results were later checked by the sample-plot census and the two compared favorably in showing the geographic distribution of density.

It must be remembered that such a system will give an accurate index only where the areas being compared are similar, and where the hunting is done at the same time and in the same manner. It is further necessary that the hunters return a true count of the birds flushed.

An index to the trend of a population of a species may be obtained by bag record taken through a term of years. Leopold recorded "jacksnipe seen and killed in Dane County, Wisconsin, during weekly hunts from 1919 to 1929, by himself and A. W. Schorger. The birds seen and killed per trip are reduced to a uniform time-interval (per full day of 8 hours). The conclusion was that a decrease of perhaps 50% has taken place during the period measured." He also kept a similar record that compares "ducks seen per year, and ducks seen and killed per day, in the middle Rio Grande Valley, New Mexico, during weekly hunts from 1918 to 1923."



The above object to the right was removed from underneath the feathers of a ringneck pheasant, well up under the throat.

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# The 1942 Flight of Woodcocks

*(Continued from page 6)*

flights occurred after October 19. In a normal October perhaps all migration would have been a little earlier.

Allan T. Studholme, Acting Chief, Division of Propagation and Research, Pennsylvania Game Commission, received some reports from woodcock observers on the 1942 fall flight through McKean County. Two heavy flights were observed in that county and they were recorded October 2-4 and October 10-11. As McKean County is about 100 miles north of Centre County, it is likely that those flights were the same flights that were recorded in Centre County October 6-11 and October 15-19.

In general, the 1942 fall flight of woodcock through Centre County was very good. It is hoped that the recovery trend will continue.

On Sunday, November 22, Martin Stapleton, a teacher at the Rothsville High School, called Barton L. Sharp, president of the Lancaster County Bird Club, Lititz, on the phone to tell him about a rare bird he found. Sharp investigated and found it to be a Scissor-Tailed Flycatcher—a male in full plumage, perched on an apple tree. The bird was collected for scientific purposes. These birds seldom leave their southern and south western range, and records show there was only one previous record for Pennsylvania and one for New Jersey. The New Jersey record was made by a Dr. Abbott in Trenton in 1872.

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## A Marine's Dream

A Marine dreams of his home
In the outdoors where he was born
Of wooded hill and dale
Of fields of standing corn

A glimpse of a fleeing rabbit
A little beagle ringing song
These are his fondest dreams
When the nights are long

When the war is over
And the boys come marching home
This Marine and his dog
Once again, the fields will roam

For hunting is his pleasure
That he always will enjoy
To some he's a big Marine
At heart, he's just a boy

PVT. HAROLD W. FISHER,
U. S. Marine Corps.

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## Do You Know That

*By* W. W. BRITTON

1. The pioneer fur traders in Alaska and Canada offered rewards to the Indian or Eskimo who saw the first goose of the spring, and all joined in jubilant welcome to the newcomer.

2. Two thousand years ago many learned persons advanced the idea that migratory birds flew to the moon and there spent the winter.

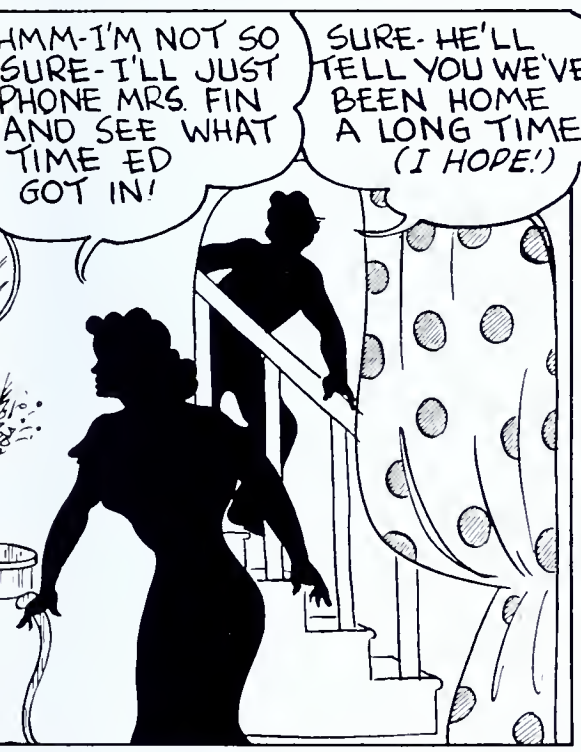
3. The mystery of migration had men like Aristotle so puzzled that many of them thought that the larger birds carried upon their backs as living freight the smaller birds which were known to be notoriously poor flyers.

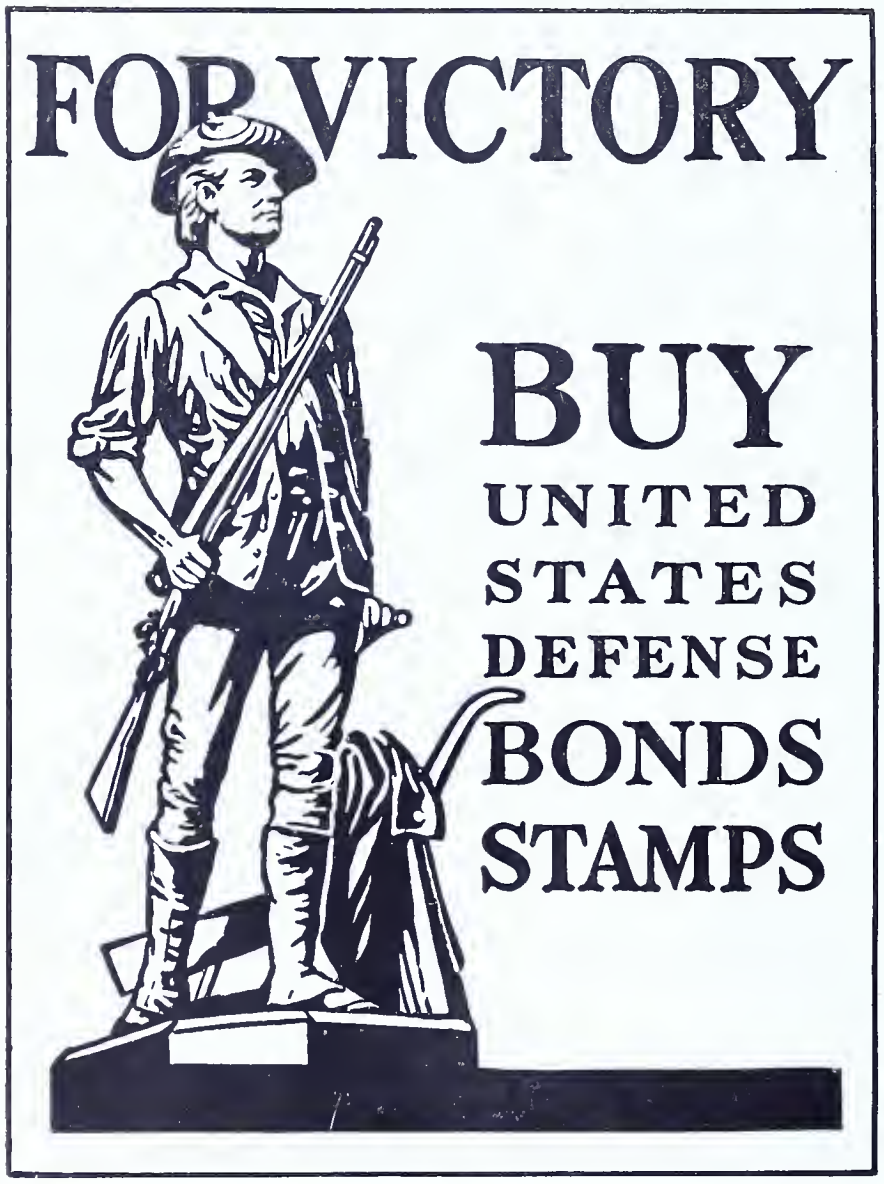
4. The majority of small birds and many of the larger migrate at night, so that they may more readily elude their enemies under cover of the darkness.

5. Reverse Migration, called "Vagrant Migration" has been noted among the Heron Family. Many of these birds go North after nesting season for a short time previous to their southern flight.

**Editor's Note: If you like this little column please contribute to it.**

# THE FAMILY OF A. HUNTER, ESQUIRE—EPISODE NO. 24




FOR VICTORY
BUY
UNITED
STATES
DEFENSE
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STAMPS